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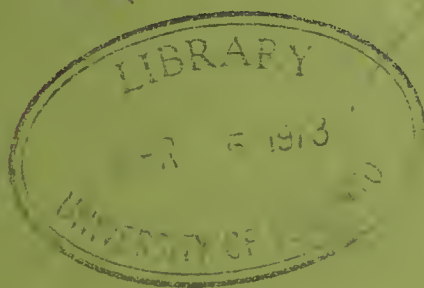


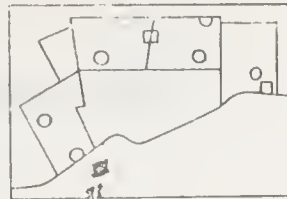
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housing needs in the metropolitan toronto planning area





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①

April 8, 1969

TO THE PLANNING BOARD

RE: Report on Housing Needs in the Metropolitan
Toronto Planning Area

At its meeting on September 21, 1966 the Board received a report "Design for a Study of Public Housing Needs" prepared on the Board's instruction by Paterson Planning and Research and recommended that:

- (a) The appraisal be accepted and recommended to Council together with an application to the Province and Central Mortgage and Housing Corporation for financial assistance under The National Housing Act, and furthermore, that the Ontario Housing Corporation be invited to join in the application and to share the municipal cost of the study;
- (b) In the event of obtaining such assistance, the firm of Paterson Planning and Research be appointed to carry out the study in accordance with the specifications contained in the appraisal at a maximum cost of \$15,400.00.

The proposal for such a study had been made by the Ontario Housing Corporation in reporting to the Welfare and Housing Committee in January 1966 on its housing programme in Metropolitan Toronto. It was stated that the only available measure of the demand for low-rent housing was the Metropolitan Housing Registry and that this was not considered a suitable



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method of measuring either the short-term or long-term need for such housing.

On November 15, 1966, Council approved the recommendations that an application be made to Central Mortgage and Housing Corporation for a grant, under Part V of the National Housing Act, of 75% of the consultant's fee for the study, that the Ontario Housing Corporation be requested to contribute 50% of the municipal share, and that, subject to the approval of the Minister of Municipal Affairs and the two Corporations, the study be carried out by Paterson Planning and Research.

In January 1967 Central Mortgage and Housing Corporation agreed to contribute \$11,550.00, and Ontario Housing Corporation agreed to contribute half the remaining cost.

The consultant's expectation of a quick study, making use of readily available statistics was, unfortunately, not realised. The complexity of the material might be gauged by the final report itself, and also by mention of the fact that a separate technical appendix was produced containing 160 pages of which 130 were tables. Production of the final tables became a computer operation. An unexpected delay of several months in the publication of certain essential statistics from the 1966 Census of Canada also prolonged the study.

The report "Housing Needs in the Metropolitan Toronto Planning Area" by Paterson Planning and Research, is now submitted for the Board's consideration. It will be observed that the title does not confine the subject to public housing. In Mr. Paterson's preliminary appraisal for the study it was stated that public housing needs would have to be placed in the context of total housing requirements. In further refinement of the research details the defined purpose of the study was to measure the total housing requirements for the Metropolitan Toronto Planning Area projected to 1981, and to estimate the portions of the total requirement that would be supplied by the private market, that would be eligible for public housing, and that would remain as a middle segment of need between these two, requiring other means of cost reduction if housing goals are to be met.



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The postulated housing goals are the provision of adequate shelter for all families and non-family individuals within their incomes. Four degrees of inadequate housing were defined containing different selections or combinations of the basic criteria:

1. poor physical condition of structures,
2. doubled-up families,
3. over-crowding.

Two degrees of spending beyond income are used:

1. Where a family or individual is spending more on shelter costs than the percentage of income which would be charged by the Ontario Housing Corporation for public housing. This is a sliding scale which reaches a maximum of 30% for a monthly income of \$560+.
2. A percentage of income 50% higher than the O.H.C. scale. This would reach a maximum of 45% of income at \$560+ per month.

By combining the various categories of income (expressed in constant dollars for different years), shelter-cost-to-income ratios, housing adequacy or inadequacies, and family size, a highly variable selection of needs is possible depending upon the criteria used and the sections of the population to which these criteria are applied. Some of the results of selecting different categories are given in Table 32, Page 69 of the report. For example, in 1966:

1. 805 families of three or more persons of low income were living in the most inadequate housing conditions and paying shelter costs well beyond their incomes (50% or more higher than the Ontario Housing Corporation scale's maximum proportion).
2. If the 3+ families of low income and the most inadequate housing, paying well beyond their incomes, were extended to include all paying beyond the O.H.C. scale proportion of their incomes, then 805 becomes 1,727.



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3. Extension again to add one more category of inadequacy to the low income 3+ families paying more than the O.H.C. scale gives 15,553 families with needs.
4. Adding two-person families to the other families of low income suffering any of the first three of the four inadequacy categories, where the families are spending beyond the O.H.C. scale, doubles the measurement of need to 33,461.

And so on to reach a maximum total of 360,753 families and individuals of all income groups who were (a) spending beyond their incomes according to the O.H.C. scale, or (b) were suffering from any of the four housing inadequacies, or both (a) and (b). It should be noted that the figure of 360,753 is a theoretical maximum which includes lodging individuals, many families and individuals who are adequately housed but exceed the O.H.C. proportion of income spent on housing by only a small amount, and others who are not spending beyond their incomes but are suffering some form of housing inadequacy - if only slight. Moreover, there will always be a substantial number of people willing to spend a larger proportion of their incomes on housing, or who choose to share accommodation with in-laws or relations - even at the inconvenience of a little crowding. For many also, the excess spending or crowding is only a temporary phase, particularly with young families, which is eventually overcome.

In 1966, 46,000 families and elderly persons of low income who were inadequately housed would have been eligible, under existing policy, for public housing. A provision of 24,000 public housing units would have met the needs of this group as a one to one supply is not required to undouble sharing families or for the relief of overcrowding. In the 1966 to 1981 period a further 100,000 families and elderly individuals will become eligible for public housing by reason of not being able to find adequate shelter within their incomes in the private market. The housing goals assume that the inadequate housing of 1966 will be removed during the 1966 to 1981 period and new inadequacies not added. The 100,000 additional demand will therefore equal dwelling unit needs.



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About as many families and individuals in the 1966 to 1981 growth period will fall into the middle segment as there will be in the public housing category. These are the people who would not qualify for public housing but would not be able to find housing in the private market within their incomes. The middle segment in 1966 was much larger than the public housing eligibles. In both 1966 and 1966 to 1981 the middle segments are not confined to middle income groups but include large numbers of families and individuals of low income. The problem of the middle segment is one that has recently given rise to much public discussion and was noted by the Minister of Transport's Task Force report.

The problem in this study has been one of definition and statistical measurement, but the analyses in the report are presented in such detailed fashion that they allow a great deal of flexibility in interpretation and in the selection of different degrees of need. This flexibility will enable the Board, the Council and other agencies concerned with housing, to select those levels of need which they consider significant and to shape goals and policy accordingly.

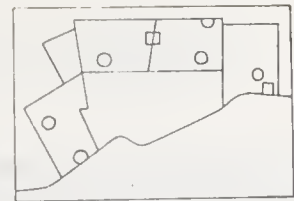
The estimated total requirement of new dwellings over the 15-year forecast period 1966-1981, is considered within the capacity of the residential construction industry. The increase of 400,000 dwelling units, from 580,000 to 980,000 total dwelling stock, to make good the 1966 inadequacies and to provide for future population growth, would require an output of 28,500 units per year (allowing also for replacement of demolitions) which compares with 26,000 per year produced in the five-year period 1964-1968 in the Planning Area. However, of new dwelling units in 1967 and 1968, 64% were apartments and this percentage is expected to exceed 70% in 1969. The problem will therefore be rather to build the right types and sizes of units and at prices which people can afford.

A further report containing recommendations will be submitted to the Board at the May meeting.

W. Wronski
Commissioner of Planning.

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May 12, 1969

TO THE PLANNING BOARD

REPORT ON HOUSING NEEDS IN THE METROPOLITAN TORONTO PLANNING AREA

Report No. 1

When the Report on Housing Needs in the Metropolitan Toronto Planning Area was submitted to the Board in April 1969, it was noted that a further report containing analysis of the statistics and recommendations would be made to the Board at the May meeting.

In the time available it has been possible to report on only one aspect of the Report, namely the need estimates for family public housing. This aspect is, however, particularly important as the Metropolitan Welfare and Housing Committee requires this Board's recommendation with respect to the Metropolitan Corporation's requirements for publicly assisted housing to be made available through the Ontario Housing Corporation.

Thus, in order not to delay any further the Metropolitan Council's considerations of its request to the Ontario Housing Corporation, this partial report is now submitted to the Board. It is intended to report further on the housing needs of the elderly and the middle income section of the population at a later date.

It was concluded in the Housing Needs Report that there were 17,878 families in need of and eligible for public housing dwelling units in 1966, and it was estimated that there would be a further 77,608 families in this category with the 1966-1981 population growth, giving a total need of 95,486 from 1966 to 1981 (see Table 1, Page 8 of Report). These figures include only families of three or more persons having a low family income (a maximum of \$5,640 per annum) and suffering one of the following four categories of housing inadequacies:



1. Inadequacy due to poor structural condition either alone or in combination with overcrowding. (Overcrowding is defined as occupancy of a dwelling unit by more than one person per room).
2. Inadequacy due to poor condition and occupancy by two or more families, either with or without overcrowding.
3. Inadequacy due to occupancy by two or more families, either with or without overcrowding.
4. Inadequacy due to overcrowding alone.

(A fuller definition of these four categories is included on Pages 20 and 21 of the main Report).

The 1966 to 1981 statistical estimate of 95,486 public housing units required to satisfy the existing need as well as to provide sufficient housing stock to accommodate the future demand by families eligible for publicly assisted housing was a gross figure which the Paterson Report stated would require some adjustment before being translated into an actual public housing program. For example, the Report discussed the effective demand ratio, that is the proportion of the total number of eligible families who would wish to apply for public housing and who would accept it when offered them. A scrutiny and rationalization of the gross figure has, therefore, been made in order to produce a practical long-term goal for the Ontario Housing Corporation.

There are several population groups included in the total need figure whose need might not be urgent when considered for the degree of inadequacy of their present accommodation or their economic or other circumstances, such as home ownership. The production, 1966 to 1969, of public housing units, and the units under construction or being processed, should be subtracted from the 1966 to 1981 program. On the other hand, low income families comprising two persons should be added as they were not included in the 95,486 needs figure but are accepted by the Ontario Housing Corporation.

These modifications produce the following adjusted estimates of need for publicly assisted housing units:



Cumulative
Corrections

1.	Family type public housing units, gross needs estimated in Report	95,486
2.	Add 11,594 two-person family units	107,080
3.	Deduct 5,933 families "within income" in least shelter deficiency categories	101,147
4.	Deduct 5,640 homeowners	95,507
5.	Apply demand/needs ratio 1:2 ⁽¹⁾	47,753
6.	Deduct 12,233 public housing unit completions 1966-1969 and units under construction or being processed and to be completed by 1971	35,520

- (1) In 1966 the ratio of applications on file with the Housing Registry to the total number of families estimated in the Housing Report as eligible for public housing was 1:5. It is expected that this ratio will increase considerably with more widespread knowledge, and more varied forms, of publicly assisted housing; a judgment has therefore been made that 1:2 demands to needs be accepted as a working ratio.

The above calculations give a total housing need for those who would be considered eligible for public housing of about 35,000 dwelling units or an annual average production of 3,500 dwelling units for the 10 years 1971 to 1981. Such a program would cost a capital outlay over the 10-year period of \$56 million per year in 1969 values, or a total of \$560 million for the 10-year period, and the Municipality of Metropolitan Toronto's annual contribution to the operating costs would be about \$240,000 for each annual addition of 3,500 units. The Metropolitan municipal cost is 7-1/2% of the net loss on public housing, net loss being the cost of amortization of the total capital outlay plus all other operating costs, minus monies received for rents.

The recommended longterm provision of 35,000 dwelling units would go only part way to meet the housing goals which are the provision of adequate shelter for all families and non-family individuals within their incomes. The 47,700 families deducted for the estimate of those who would not apply for



public housing, would still be living beyond their means and in inadequate housing; and a further 134,500 families in middle and lower income brackets, included in the 1966 to 1981 total needs in the housing report, would be unable to afford adequate housing in the open market but would not qualify for public housing under present policies.

Alternatively, the implementation of successful programs to produce cheaper housing on a large scale could eventually reduce the demands for public housing. Mention might be made, for example, of low cost, low down payment, condominium projects which are at present being developed under the provisions of the provincial H.O.M.E. program.

A serious obstacle to the achievement of a longterm program could arise from a shortage of suitable sites for housing projects. Metropolitan Toronto is fast running out of suitable sites and it is obvious that some of the publicly assisted housing must be constructed in the growth areas of the fringe municipalities. However, the present provincial legislation limits the action of the Ontario Housing Corporation to those municipalities which, like Metropolitan Toronto, have requested a supply of such housing. It is unlikely that the municipalities in the fringe Metropolitan area would request the O.H.C. to construct any publicly assisted housing to meet Metropolitan Toronto's demand. The reason for a request for public housing in the case of the Town of Mississauga was a demand from its own residents. The local government reform in the Metropolitan Toronto region contemplated at the present moment by the province will not correct this situation which could only be improved by enlarging the political and economic responsibilities of the Metropolitan Corporation.

In a discussion of a long range program for the provision of publicly assisted housing for low income families, the form which this provision takes is of great importance. The current public discussions regarding the social problem of large "public housing projects", highlighted by the recent publication of the Federal Government Task Force on Housing and Urban Development, underscores the importance of a very successful method of housing of low income families used by the former Metropolitan Toronto Housing Authority, known as the Rent Certificate Plan, which permitted direct assistance to tenants who were housed in private housing developments. Unfortunately, this method of housing assistance has not been made available to the O.H.C. under the federal legislation; the Metropolitan Corporation should request the O.H.C. to negotiate a change in the federal housing legislation to make this form of housing assistance available in the Metropolitan area.



RECOMMENDATIONS

It is recommended that Metropolitan Council be advised that:

1. A publicly assisted housing program of 35,000 additional units has been indicated by the Housing Needs Report and supplementary information as a requirement to meet the most severe hardship needs between 1971 and 1981 when the current Ontario Housing Corporation program is completed.
2. Ontario Housing Corporation be asked to consider planning for an annual program of 3,500 units for 1971 to 1981 to meet this need.
3. Ontario Housing Corporation be asked to recommend, in its next annual report to the Housing and Welfare Committee, the distribution of dwelling sizes which will be required.
4. This proposed program be reviewed in 1973 or such earlier date as information becomes available from the 1971 Census of Canada to reappraise the housing needs.
5. Ontario Housing Corporation be asked to request the federal government that funds be made available to implement the recommended program of 3,500 units of publicly assisted housing per annum; and to enable them to introduce alternative forms of such housing as suggested in this report.

W. Wronski
Commissioner of Planning

HOUSING NEEDS
in the
METROPOLITAN TORONTO
PLANNING AREA

Paterson Planning and Research,
Suite 9, 695 Markham Road, Scarborough, Ontario.

March 1969



LETTER OF TRANSMITTAL

March 28, 1969

Mr. W. Wronski,
Commissioner of Planning,
Metropolitan Toronto Planning Board,
City Hall,
Toronto 1, Ontario.

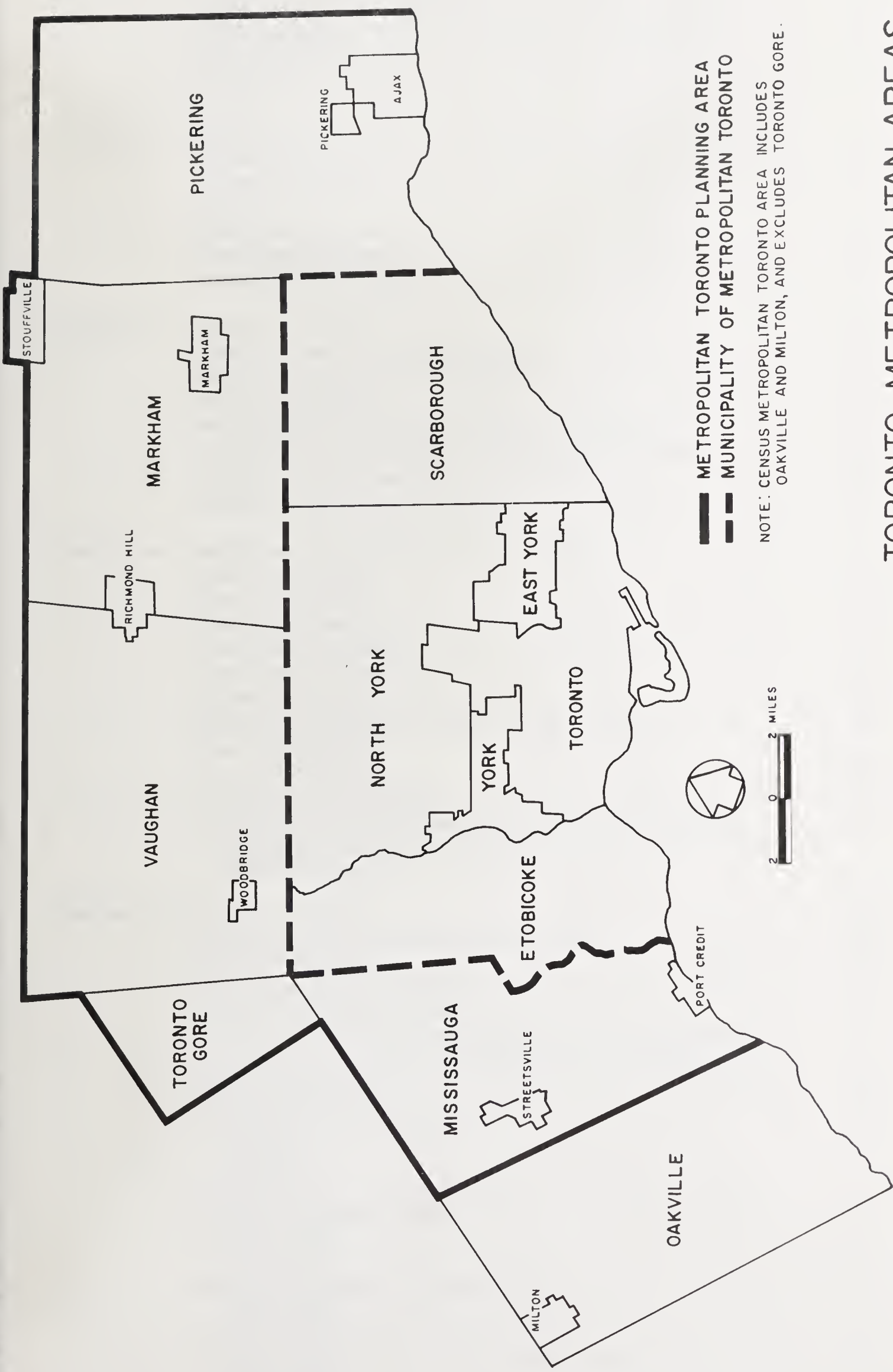
Dear Mr. Wronski:

I am pleased to submit herewith the Report and Appendix
of the Study of Housing Needs in the Metropolitan Toronto Planning Area.

It is hoped they will prove of assistance in the determination
of housing requirements and the formulation of housing policies.

Yours sincerely,

Donald M. Paterson,
Paterson Planning and Research.



TORONTO METROPOLITAN AREAS

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CHAPTER 1

INTRODUCTION

Background

This study was initiated by the Metropolitan Toronto Planning Board, at the request of the Ontario Housing Corporation and with the approval of the Ontario Department of Municipal Affairs and the support of Central Mortgage and Housing Corporation. It was carried out by Paterson Planning and Research Limited in consultation with these agencies. Financial assistance was provided through C.M.H.C. by a grant under Section 33, Part V of the National Housing Act covering 75% of the consultant's fee, the remaining 25% being equally shared by the M. T. P. B. and O. H. C.

Purpose

The original intention was to have a fairly short study carried out to provide a quick and rather rough appraisal of the need for public housing in the Metropolitan Toronto Planning Area. But under the complex and changing conditions of the Metropolitan Toronto housing market, it was concluded that such a study would probably prove of little lasting value. The study design therefore, set out a more ambitious program based on the construction of a series of market models dealing with total housing requirements. While statistical models had been developed for the Metropolitan area in other fields, particularly transportation, they had never before been applied to the study of housing conditions here.

The purpose of the study was to measure the total housing requirement for the Metropolitan Toronto Planning Area projected to 1981, and to estimate the portions of the total requirement that would be supplied by the private market, that would be eligible for public housing, and that would remain as a middle segment of need between these two, requiring other means of cost reduction or income supplementation if housing goals are to be met. The postulated housing goals were the provision of adequate shelter for all families and non-family individuals, within their incomes.

Method and Time Period

The kind of model developed was a multiple cross-tabulation* of the four main market variables: family size, income, shelter cost and shelter quality. The study method was to obtain all the pertinent cross-tabulations available from the last census of housing and other sources, and to devise techniques for creating the remaining cross-tabulations required. The major steps in the study were: first, to build a model of the housing market in 1961, the date of the last housing census; next, to build a model for 1966 by updating the 1961 variables; and then to build projected models for 1971 and again for 1981. The 1961 and 1966 models were to be as representative of reality as it was possible to make them.** But the future models were to be of a normative or "ideal" type, to show the market situation which would have to be created in the future if certain housing goals are to be met. The goals chosen were the provision of adequate shelter to all families and non-family individuals in the Metropolitan Toronto Planning Area, at costs within their incomes.

By using this normative approach, it was felt that a useful frame of reference would be provided for the evaluation of housing programs and policies. Of the four models created, it is felt that those for 1966 and 1981 will prove most useful, the former as a realistic indication of 1966 housing needs, and the latter as a long-term goal expressed in quantitative terms.

Study Areas

The 1961 and 1966 models represent the housing market in the Toronto Census Metropolitan Area, and not the Metropolitan Toronto Planning Area. This was necessitated by the fact that the basic cross-tabulations were

* A cross-tabulation shows the relationship between two or more variables, as for instance a table which shows the distribution of shelter costs for each family size.

** Although the models are considered realistic in other respects, it proved impossible within the study budget to build an allowance for vacant units into them; they therefore deal with occupied units only. Estimates of vacant dwelling units are given separately in Table 20 however.

from the census of housing and available only for the CMA. The future models on the other hand were constructed with inputs prepared especially for the purpose, and they were accordingly built for the Metropolitan Toronto Planning Area. To establish comparability between the past and future models therefore it was necessary to devise a set of ratios to relate the housing needs of the Planning Area to those of the CMA. A related problem may arise from the need to divide the Planning Area totals into two parts, Metropolitan Toronto proper, and the fringe.

Because each of the components of housing need has a somewhat different geographical distribution, there is no single, precise set of ratios for these different areas that will exactly define the proportion of each need component to be found in each area. Nevertheless, housing needs are so heavily concentrated in Metropolitan Toronto that a detailed set of figures for the fringe areas would be of little value. Accordingly, determination of the approximate proportion of overall housing need to be found in the respective areas was deemed sufficient for study purposes. Based on an analysis of the various 1961 and 1966 census tabulations, it was concluded that approximately 99% of the housing needs found in the Toronto Census Metropolitan Area, are within the Metropolitan Toronto Planning Area. This means that for all practical purposes, the figures in the 1961 and 1966 models for the CMA can be taken as applicable to the Planning Area without adjustment. Similarly, within the Metropolitan Toronto Planning Area, it is estimated that approximately 95% of the overall housing needs are to be found within Metropolitan Toronto proper. It must be stressed of course, that the Metropolitan housing market functions with little or no regard to these boundaries. But where, for jurisdictional purposes, a breakdown is required, these ratios may be used. Since 95% of 99% is approximately 94%, this would be the factor to apply if figures for Metropolitan Toronto alone are required.

The above ratios of course, apply to the model figures which show housing need and not to the total housing stock. For comparison the

Planning Area accounted for 97.4% of the total occupied dwelling units in the CMA in 1966, whereas within the Planning Area, Metropolitan Toronto contained 90.4% of the occupied dwellings.

Report Outline

A summary of the study and findings is presented in Chapter 2. Chapter 3 discusses in detail the criteria used for measuring need, and Chapter 4 describes the design and construction of the models. The detailed findings of need are then presented in Chapter 5 and consideration is given to the relationship of demand to need, and to the implications of the study for housing policies. Finally, in Chapter 6, some useful further studies are discussed and recommended.

Appendix

An Appendix has also been prepared under separate cover for those interested in the technical details of the Study. Comprising some 125 tables and accompanying text, it shows the step by step construction of the models and development of the input data.

CHAPTER 2

SUMMARY

Introduction

This report was prepared by Paterson Planning and Research Limited in consultation with the Metropolitan Toronto Planning Board, Ontario Housing Corporation, Central Mortgage and Housing Corporation and the Ontario Department of Municipal Affairs.

The purpose of the study was to measure the total housing requirement for the Metropolitan Toronto Planning Area projected to 1981, and to estimate the portions of the total requirement that would be supplied by the private market, that would be eligible for public housing, and that would remain as a middle segment of need between these two, requiring other means of cost reduction if housing goals are to be met. The postulated housing goals were the provision of adequate shelter for all families and non-family individuals, within their incomes.

Criteria of Need

Before the need for housing could be measured, criteria of need had to be established. In the light of the postulated goals, criteria were required for shelter adequacy, and for the acceptable relationship of shelter cost to income.

Four categories of inadequate shelter were defined for the study:

1. Inadequacy due to poor structural condition either alone or in combination with overcrowding.*
2. Inadequacy due to poor condition and occupancy by two or more families, either with or without overcrowding.
3. Inadequacy due to occupancy by two or more families either with or without overcrowding.
4. Inadequacy due to overcrowding alone.

* Overcrowding is defined as occupancy of a dwelling unit by more than one person per room.

Housing units not classified in any of these inadequacy categories were considered adequate.

The criterion adopted for determining whether shelter costs are within or beyond what might be considered a reasonable amount in relation to income, was the rent to income scale currently used by the Ontario Housing Corporation for gearing rents to incomes in public housing.* The current scale is a Federal scale with national application, which O.H.C. agreed to use in the spring of 1967. All references in this report to the "O.H.C. scale" relate to this Federal scale used by Ontario Housing Corporation.

Method

Need was measured in terms of both dwelling units, as defined by the census, and "shelter units". A shelter unit as defined for study purposes, is the accommodation occupied by a family, or a non-family individual. The number of shelter units is therefore equal to the number of occupied dwelling units plus the number of lodging families and lodging non-family individuals.

The study is a statistical one, based on the construction of four housing market models, one for each of the years 1961, 1966, 1971 and 1981. The basic inputs were the housing census of Canada 1961; the 1966 census and 1966 estimates of the main market variables, prepared by the consultant; forecasts of population, families by size and non-family individuals prepared by the Metropolitan Toronto Planning Board; and forecasts of incomes and housing costs prepared by the consultant.

The 1961 and 1966 models were designed to reflect the actual market conditions as realistically as possible. The 1971 and 1981 models were geared to the attainment of the postulated housing goals by 1981. The

* Another scale, in which the acceptable ratio of shelter-cost-to-income is half as great again as in the O.H.C. scale, was also applied to the 1966 data as an alternative criterion; the results are given in Tables 3 to 7 and are discussed in Chapter 5.

1961 and 1966 models were constructed for the Toronto Census Metropolitan Area because most of the required cross-tabulations of census material were only available for this area. The 1971 and 1981 models were constructed for the Metropolitan Toronto Planning Area, because the future inputs were specifically prepared for this area. With regard to housing needs however, these are so concentrated in Metropolitan Toronto that in 1966, only one percent of the unmet needs of the Census Metropolitan Area were found outside the Planning Area, an insignificant difference for study purposes. See map for the boundaries of the three Metropolitan Areas referred to above.

Findings of Need

The findings of need are summarized in Table 1.

It will be seen that in spite of significant population growth, the housing situation in the greater Metropolitan Area showed an improvement between 1961 and 1966. The number of families and non-family individuals unable to find adequate shelter within their incomes decreased from 373,183 to 360,753. These figures were composed as follows:

The number that were eligible for family type public housing decreased from 40,333 to 34,889, and the number eligible for elderly persons' housing from 13,426 to 11,400, for an overall decrease in the public housing sector from 53,759 to 46,289.*

* It should be pointed out here that the public housing sector refers to a segment of the population that meets certain statistical criteria as outlined in the study. The study does not pretend to show indications of interest in public housing among this group; neither could it differentiate between renters and owners in this group. It should also be noted that in Metropolitan Toronto, the Ontario Housing Corporation is responsible for the provision of family type public housing while the Metropolitan Toronto Housing Company is responsible for providing elderly persons' public housing. Outside of Metropolitan Toronto, O.H.C. is engaged in the provision of both types of public housing.

TABLE 1 HOUSING NEEDS IN THE STUDY AREA, 1961-1981.

	1961		1966		To Eliminate 1966 Inadequacies		To Accommodate Growth etc.		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%
All Families and Non-Family Individuals (= Shelter Units)										
Able to find Adequate Shelter Within Their Incomes	297,184	44	411,160	53	59,429	100	361,999	100	421,428 (397,481)	100 (100)
Unable to find Adequate Shelter Within Their Incomes - Total	373,183	56	360,753	47	59,429	100	198,564	55	257,993 (257,993)	61 (65)
- Eligible for Public Housing - Total	53,759	8	46,289	6	24,184	41	99,309	28	123,493 (123,493)	29 (31)
- Family Type Units	40,333	6	34,889	5	17,878	30	77,608	22	95,486 (95,486)	23 (24)
- Elderly Persons' Units	13,426	2	11,400	1	6,306	11	21,701	6	28,007 (28,007)	6 (7)
- Not Eligible for Public Housing - Total	319,424	48	314,464	41	35,245	59	99,255	27	134,500 (134,500)	32 (34)
- Shelter Adequate but Beyond Income	229,842	34	237,116	31						
- Shelter Inadequate	89,582	14	77,348	10	35,245	59				

NOTE: The figures in the Table show the numbers of families and non-family individuals to be accommodated, i.e. the number of shelter units required; the figures in brackets indicate the numbers of dwelling units required.

The remaining or middle segment of need, not eligible* for public housing, similarly declined from 319,424 to 314,464 families and non-family individuals. But the larger component of this middle segment comprising those with shelter that was adequate but beyond their incomes, showed an increase from 229,842 to 237,116; this increase however, was more than offset by the decline in the other component comprising those with inadequate shelter (either within or beyond their incomes) from 89,582 to 77,348.

Thus, although there was an overall improvement in the housing situation between 1961 and 1966, and although this must be regarded as a significant accomplishment in the light of the population growth which took place during these years, it is clear that a very significant backlog of need remained in 1966.

The requirement over the 1966-1981 period if the postulated housing goals are to be met by the latter year, may be said to consist of two components: (1) overcoming the 1966 housing deficiency or backlog, and (2) accommodating population growth, losses to the 1966 housing stock, and a reduction of the number of the individual lodgers in the surviving 1966 stock.

To overcome the 1966 housing deficiency or backlog of inadequate housing, it is not necessary to provide a new unit for each of the inadequate shelter units in 1966, because a large proportion of the inadequacies were due to sharing and overcrowding. For example, in the case of two families sharing a dwelling, the provision of one new unit will permit undoubling,

* According to O.H.C. everyone is "eligible" to apply for public housing but not everyone has need for it. The word eligible is used in a narrower sense in the study however, to denote only those with sufficient need to qualify for admission to public housing.

thereby giving each family an adequate unit; similarly, in the case of overcrowding, it has been considered for study purposes that provision of one new unit for every four overcrowded ones, will be sufficient to permit the uncrowding of all of them through a process of re-shuffling. Only in cases where poor structural condition is involved, will it be necessary to replace the inadequate shelter units on a one-for-one basis.

The result is that only about half as many new shelter units will be required to overcome the 1966 inadequacies as there were inadequately-housed families and non-family individuals in that year. The respective totals are 59,429 new shelter units required to overcome the shelter inadequacies of 123,637 families and non-family individuals. Of the new units required for this purpose, 17,878 would represent a need for family type public housing and 6,306 the need for elderly persons' public housing, for a total in the public housing sector of 24,184. The remaining 35,245 would be required to overcome the shelter inadequacies of those not eligible for public housing.

It must be noted however, that while these new units would overcome the backlog of physical inadequacies, the removal of lodging families and lodging individuals from shared and crowded dwellings would reduce the incomes of the owners and tenants of these dwellings by the amount of the lodging rents they have been receiving; unless means could be found to lower the shelter costs of their now adequate units, or to augment their incomes, many of them would probably be unable to retain the units which had been made adequate through undoubling and uncrowding.

This effect has been taken into account in determining the shelter cost distribution required to bring all shelter costs within incomes by 1981, and this required cost distribution in turn, has been used to estimate the proportion of the total 1966-1981 new housing requirement which can be met by the private market, the proportion which will be eligible

for public housing, and the proportion which will fall within the remaining or middle segment of need.

Beyond overcoming the 1966 backlog, the requirement to accommodate growth, stock losses*, and a reduction of the number of lodgers in the surviving 1966 stock, has thus been broken into the segments of need in accordance with the required shelter cost distribution, compared with an estimate of the likely cost distribution of private new residential construction over the forecast period. For study purposes, it has been assumed that there will be a public housing need for new units for families of three or more persons, who cannot afford to pay \$130 or more per month (in constant 1966 dollars), elderly two-person families who cannot afford to pay \$69 or more per month, and elderly individuals who cannot afford to pay \$43 or more per month.** New units required for those who can afford shelter costs of \$175 per month and up have been assumed to be a need which the private market, unaided, will be able to supply. And new units with required shelter costs in the \$130-\$174 per month range have been assumed to fall within the middle segment of need, and require some means of cost reduction other than public housing if those in need of them are not to be forced to spend beyond their incomes for shelter, or to accept inadequate shelter.

On these assumptions, of the 361,999 new units required to accommodate growth etc., the private market unaided would be capable of supplying 163,435. Another 77,608 would represent a requirement for family type public housing, and 21,701 a requirement for elderly persons' public

* It has been assumed that urban renewal programs and enforcement of housing standard by-laws will effectively prevent housing that is presently not in poor physical condition from deteriorating into poor condition over the forecast period.

** These figures represent the appropriate shelter cost (according to the O.H.C. scale) at the top of the low income range as defined in each case for study purposes.

housing, for a total public housing requirement of 99,309. The remaining requirement for 99,255 new units, would fall within the middle segment of need requiring some other means of cost reduction or income supplementation if those in this segment are to be provided with adequate shelter within their incomes by 1981.

The combined total requirement over the forecast period, both to overcome the 1966 backlog and to provide for growth etc. would therefore amount to 421,428 new shelter units. Of these, 163,435 or 39% would fall within the segment which could be supplied by the private market. Another 123,493 or 29%, would represent a requirement for public housing. The remaining 134,500 or 32%, would represent the middle segment of need. These figures are in terms of shelter units, not dwelling units as defined by the census. In terms of dwelling units the total requirement would be 397,481, of which 139,488 or 35% would fall within the private market segment; the public housing and middle segment totals would remain as before, but would in this case represent 31% and 34% respectively of the total dwelling unit requirement.

Need and Demand

In general, it is assumed that the above need figures would represent the market demand for units in the corresponding price ranges with the exception of the public housing segment where the need is not likely to be fully expressed in demand. Evidently the ratio of effective demand to need for family type public housing in 1966 was only about 1 in 15 if all eligible families in need are considered, or about 1 in $7\frac{1}{2}$ if only the need for additional units to overcome the backlog is considered. This takes into account the fact that a segment of those statistically designated as "in need of public housing" are, and will be owning their own houses and likely will continue to favour this expression of independence regardless of the fact that they may be paying "above income" or occupy shelter that has a degree of inadequacy.

When examining the sector "beyond income" it should be remembered that a person may be beyond income due to the fact that his total shelter payments include a "forced saving", that is, that part of his payments which reduces the principal of any outstanding mortgage.

It is debatable whether this constitutes a true shelter cost, but the study has elected to define it in this way because if a family is spending more of its income than it can afford on shelter cost the hardship is the same whether the shelter cost includes a mortgage or rent.

Although the ratio of demand to need for public housing appears to be rising, and will almost certainly continue to do so, it is not considered likely that public housing demand will come to equal the indicated need over the forecast period. This would have the effect of leaving a portion of the public housing need to be met by whatever programs may be developed to serve the middle segment of need, if it is thought desirable or necessary to develop such programs.

Policy Implications

Thus, in addition to a significant requirement for public housing over the forecast period, there is a still larger middle segment of need, which could be augmented if the demand for public housing fails to equal the need, or if the costs of private new residential construction should show a more rapid rate of increase than has been assumed. On the other hand, a portion of this middle segment could be transferred to the public housing sector if public housing policies were revised so as to include relatively higher incomes than at present, or to include a significant portion of the non-elderly two-person families and individuals.

In any event, the middle segment of need will require sustained efforts to reduce the costs of private housing production and to provide effective public assistance in one form or another, if the postulated housing goals are to be met by 1981.

CHAPTER 3

CRITERIA OF NEED

Before the need for housing can be measured, what constitutes need must be defined; and many definitions are possible.

For study purposes, it was deemed essential to consider both the adequacy of a housing unit, and its cost in relation to the occupants' income. In simple terms, it may be said that the need is for shelter that is physically adequate at a cost that the occupant can afford. Those whose housing is too costly, or inadequate, or both, may therefore be said to be in need of housing that is cheaper, or more adequate, or both.

But this basic definition begs the twin questions of what is too costly, and what is inadequate; and it is to these questions that many different answers may be given.

In the study, the former question was handled by the use of shelter-cost-to-income scales, and the latter by adopting definitions of inadequacy geared to data available from the Census.

Shelter-Cost-To-Income Scales

Two scales were employed in the study. The first is the rent-to-income scale currently used by the Ontario Housing Corporation to determine rents for public housing units; this scale is given in Table 2, and was used in each of the four housing market models.

The second is a similar scale designed for study purposes, in which the shelter-cost proportion of income is half as great again as in the scale used by O. H. C.

For comparison, the lower end of the O. H. C. scale shows a ratio of rent to income of 16.7%, while on the second scale the ratio at the low end is 25%; similarly, the top end of the O. H. C. scale shows a ratio of 30% while

THE O.H.C. SCALE

TABLE 2 GRADUATED MONTHLY RENTAL SCALE FOR FULLY SERVICED
ACCOMMODATION IN PUBLIC HOUSING PROJECTS

Family Income \$	Rent \$	%	Family Income \$	Rent \$	%	Family Income \$	Rent \$	%
up to								
192	32	16.7	320	76	23.8	448	119	26.6
196	33	16.8	324	77	23.8	452	120	26.6
200	35	17.5	328	78	23.8	456	122	26.6
204	36	17.7	332	80	24.1	472	128	27.1
208	37	17.8	336	81	24.1	476	130	27.3
212	39	18.4	340	82	24.1	480	131	27.3
216	40	18.5	344	84	24.4	484	132	27.3
220	42	19.1	348	85	24.4	488	133	27.3
224	43	19.2	352	86	24.4	492	135	27.4
228	45	19.7	356	88	24.7	496	136	27.4
232	46	19.8	360	89	24.7	500	137	27.4
236	47	19.9	364	91	25.0	504	139	27.5
240	48	20.0	368	92	25.0	508	140	27.5
244	50	20.5	372	94	25.3	512	141	27.5
248	51	20.6				516	143	27.7
252	53	21.0	376	95	25.3	520	144	27.7
256	54	21.1	380	96	25.3	524	146	27.8
260	56	21.5	384	97	25.3	528	147	27.8
264	57	21.6	388	98	25.3	532	149	28.0
268	58	21.6	392	100	25.5	536	151	28.2
272	59	21.7	396	101	25.5	540	153	28.3
276	61	22.1	400	103	25.7	544	155	28.5
280	62	22.1	404	104	25.7	548	158	28.8
			408	106	25.9	552	161	29.1
284	63	22.2	412	107	25.9	556	164	29.5
288	65	22.6	416	108	25.9	560	168	30.0
292	66	22.6	420	109	25.9	561 & up		30.0
296	67	22.6	424	110	25.9			
300	69	23.0	428	112	26.2			
304	70	23.0	432	114	26.4			
308	72	23.4	436	115	26.4			
312	74	23.7	440	117	26.6			
316	75	23.7	444	118	26.6			

The monthly rent shown opposite income applies until the next income change shown. Services included in the rent are heat, hot and cold water, stove and refrigerator. Where all these services are not included, the rent would be less.

Family Income is the aggregate gross income, in whatever form received, of all members of the family, or of an individual, where applicable, excluding:

- 1) Earnings of children in regular attendance at recognized educational institutions; funds for tuition such as scholarships, bursaries and contributions from non-resident family members;
- 2) Living out or travelling allowances of the family head; casual and/or part-time earnings of a spouse up to \$250.00 per annum;
- 3) Earnings in excess of \$75.00 per month of all members of the tenant family other than the family head or spouse;
- 4) Capital gains, such as insurance settlements, inheritances, sale of effects;
- 5) Family Allowances.

the ratio at the top end of the second scale is 45%. This second scale was used only in the 1966 model, to give a further breakdown of those paying beyond the O.H.C. scale into what might be termed a "moderate hardship" category (between the two scales) and a "severe hardship" category (beyond the second scale).

Ideally, of course, it would be desirable to have a still further breakdown so as to differentiate the many degrees of hardship which in fact exist; the use of only 2 scales cannot produce a distribution of the degrees of hardship. Unfortunately, the study budget precluded such further refinement of the models. Thus we do not know what proportion of those "beyond income" are just slightly beyond.

Origin and Nature of the O.H.C. Scale

The "O.H.C. scale" was developed by C.M.H.C. as an improvement on previous scales. It was adopted by the O.H.C. early in 1967 and is now also in use in public housing projects across Canada; it is therefore really a national scale, but as it is commonly referred to in Ontario as the O.H.C. scale, this terminology will be used throughout the report.

The principle of public housing is that subsidized housing should be provided for those families which are in the lower third of family incomes and cannot afford to pay market rents or prices. The principle behind the scale is that those with larger incomes pay more than those with lesser incomes. The scale therefore was designed that families at the upper limit of the lower third of incomes pay the market rent in a public housing project. For these higher incomes, the scale thus encourages the transition from subsidized projects to accommodation in the private market.

The scale was developed with reference to a specially prepared three-way cross-tabulation of 1961 Census data for tenant families in the Toronto Census Metropolitan Area, showing gross rent by total income by

family size; the data for four-person families was used and the scale was designed to yield rents that lower income families could afford. Thus the scale is considered appropriately related to the situation in the Toronto C.M.A. for use in the present study.

For families who receive welfare payments, the amount of rent charged equals the shelter allowance made by the welfare agency.

This amount is determined by regulations and varies according to the number of persons in a family; the average shelter payment is approximately \$100 per month.

Although the scale does not vary according to size of family, some adjustment for this is provided in public housing by the fact that family allowances and certain other types of income (as noted on Table 2) are not counted as income when applying the scale to determine the rents. (Also it should be realized that larger families have the benefit of a greater amount of take-home pay, have an Ontario Housing unit with more bedrooms and have greater use of utilities provided). In the study however, gross family incomes are used, and the above types of income are not excluded; if gross incomes had been reduced in this manner in the study, the result would have been to lower the level of affordable shelter costs according to the O.H.C. scale, thereby increasing the number shown as paying shelter costs beyond their incomes. The effect would vary from family to family however, depending on the proportion of income from sources other than the earnings of the family head, and for this reason it was decided that the study should use gross income data to produce more equitable results. This study technique has the effect of slightly under-stating the number shown as eligible for public housing however.

The shelter costs used in the models are also gross, that is they include not only the cost of space, but also the cost of water, electricity, gas and heating fuel; in the case of owners, mortgage interest and principal

payments along with property taxes are included as the cost of space.

It should also be noted that since the scale can be expressed as a ratio of shelter payments to income, it tends to adjust automatically for inflation or deflation, because the changing value of the dollar over time affects both costs and incomes simultaneously. For this reason, it was deemed appropriate to use the same scale in each of the models. Admittedly however, the subjective burden represented by a given share of income for shelter can change over time, with a change in total real income, or in the relative cost of other items in the budget, or with changing expectations. In fact the D. B. S. Family Expenditure surveys show that the average ratio of shelter cost to income has actually shifted over time as people have in fact changed the proportion of their income that they spend on shelter. Insofar as they get used to such a change and come to accept it, it may be that the burden of the new ratio is felt as neither more nor less onerous than the old. Nevertheless it is not possible to adjust objectively for such subjective changes, and using the same scale throughout the study period was considered the only feasible approach. It is felt that this should not materially affect the main conclusions of the study.

It should be noted that families and non-family individuals having no income* and/or paying no shelter cost** have been included in all figures throughout the study.

The Second Scale

Since the second or "hardship" scale is based directly on the O. H. C. scale, the above description of the latter applies mutatis mutandis to it.

* It is suspected that at least some of the families and individuals reporting "no income" to the Census either have an income in the form of welfare payments, or use this reply as a way of refusing to give information on their income. No attempt was made to adjust the Census figures for such mis-reporting.

** It is probable that those reporting "no shelter cost" are for the most part relatives or domestic servants of the household head, who is in effect providing them with free accommodation.

Validity of the Scales for Study Purposes

It will be clear from what has been said that the O.H.C. scale was designed to reflect an income-to-shelter-cost relationship to determine the rents in public housing, and not as a device for measuring housing need. Thus near the lower end, the scale cuts off at 16.7%, and near the upper end it incorporates a penalty feature to encourage movement into the private market; and it does not vary by size of family.

For the largest and smallest families and the highest and lowest incomes therefore, the shelter costs given by the scale can hardly be said to indicate just what such families ought to pay for their shelter. Between these extremes however, the scale was designed with the appropriate shares of income in mind.

During the study, the possibility of developing a scale or a set of scales specifically for the purpose of measuring need was given serious consideration, but it was concluded that this could not be undertaken within the study budget. It was also considered likely that while the use of the O.H.C. scale would tend to understate the need in some cases, it would tend to overstate it in others, so that any resulting bias should be at least partly cancelled out in the overall picture.

The fact that the O.H.C. scale was developed on the basis of much experience and is an integral part of public housing policy was also an overriding consideration in the decision to adopt it for study purposes, and to base the second scale upon it.

In the study, the scales have of course been applied also to non-family individuals, although the O.H.C. scale was originally developed only for family-type public housing. With the recent decision to place future elderly persons' housing projects on a rent-geared-to-income basis however, the O.H.C. scale is now being applied to elderly individuals and couples in this type of public housing, a fact which lends some support

to the use of the same scale for individuals and 2-person families in the study. Nevertheless, it seems clear that an individual or a couple can in fact afford more for shelter than a large family with the same total income, and this should be borne in mind when interpreting the study findings as to the numbers paying shelter costs beyond their incomes.

Definitions of Inadequate and Adequate Shelter

For study purposes the accommodation occupied by a family or a non-family individual was defined as inadequate if it was:

- (a) in a structure classified as needing major repair according to the criteria used by the Census; or
- (b) in a dwelling having more than one occupant per room;
or
- (c) in a dwelling shared by two or more families.

It will be noted that according to this definition, the overcrowding or sharing found in a dwelling unit is assumed to make inadequate the shelter of all families or individuals occupying that dwelling. The presence of any one of the above three conditions was sufficient to classify accommodations as inadequate, but in many cases two or three of the conditions were found together.

Thus, different types or degrees of inadequacy are found, and four categories of inadequacy were therefore developed for the models. These categories were chosen with a view to the kind of action that would be required to overcome the inadequacy, as follows:

- (1) The first category comprises inadequacy due to poor condition alone, or poor condition accompanied by overcrowding. Major repair or replacement of such a dwelling would be required to overcome the inadequacy, but since the dwelling is not shared by two or more families, replacement by a single dwelling would be sufficient, provided it was large enough to eliminate any overcrowding present.

- (2) The second category includes inadequacy due to poor condition accompanied by sharing of the dwelling by two or more families, or poor condition accompanied by such sharing and also by overcrowding. Because of the poor condition involved, major repair or replacement would again be required, but because two or more families are also involved, repair or replacement of the existing dwelling alone would not overcome the inadequacy; one or more additional dwellings would also be required to accommodate the extra family or families and thereby overcome the inadequacy due to sharing.
- (3) The third category includes inadequacy due to sharing of a dwelling by two or more families alone, or due to such sharing accompanied by overcrowding. In this case, since the dwelling is not in poor condition, no replacement or major repair would be required; but one or more additional dwellings would have to be provided to accommodate the extra family or families and thereby eliminate the sharing.
- (4) The fourth and last category comprises inadequacy due to overcrowding alone. In this case no major repair or replacement would be required, nor would any additional dwellings be required to accommodate lodging families, since not more than one family would be involved; but to overcome the overcrowding, either a larger dwelling would be required, or else the number of occupants would have to be reduced by finding suitable accommodation for one or more of them elsewhere.

From these definitions of the categories of inadequacy, it may be seen that the first and the second are probably the most serious, while the third is also of serious concern. The fourth is probably of somewhat less concern and it may also be considered less costly to overcome.

The families and non-family individuals with adequate shelter, by deduction, are all those living in dwellings without any of the above conditions. Since sharing of a dwelling by a family and one or more non-family lodgers, or sharing of a non-family dwelling by two or more non-family persons, is not defined as a condition of inadequacy, there would still be room for individual lodgers in a housing stock that was fully adequate according to the definition. And between the 1966 situation, which shows a great deal of inadequate housing, and the ideal of a fully adequate housing stock, there are at least three intermediate goals which could be sought, corresponding to the elimination of the first, second, and third inadequacy categories in the models.

Validity of the Inadequacy Definitions

While most would agree that a dwelling in need of major repair must be classed as inadequate, the sharing of a dwelling by two or more families or its occupancy by more than one person per room may be questioned as proper criteria. Certainly not all the sharing or overcrowding represents undue hardship, and some is undoubtedly quite voluntary and not imposed by necessity.

In general however, doubling-up and overcrowding are considered unsatisfactory, and it is felt that the bulk of the units classified as inadequate for these reasons are truly unsatisfactory to their occupants. Unfortunately, it is not possible to separate these from the minority of cases where sharing or crowding may be considered satisfactory by the occupants, but those using the study findings may select only those inadequacy categories which are deemed pertinent.

Different Definitions of Need

In the 1966 model, the use of four categories of inadequate shelter and two shelter-cost-to-income scales along with four income ranges and eight size categories, permits these to be combined in many different ways, each corresponding to a different definition or degree of need.

The numbers in need will vary greatly depending on the definition used, as will be shown in Chapter 5.

Here, it is only necessary to note that two main definitions are deemed to be particularly useful for study purposes. The first of these is the need for public housing (including elderly persons' housing) according to present public housing admission policies.

The second includes the remainder of those in need, i. e. those who are unable to find adequate shelter within their incomes in the private market, but who are ineligible for public housing. This group includes those with adequate shelter that is too costly, as well as those with inadequate shelter who do not qualify for public housing.

Within both the public housing sector and the remaining need sector, the model categories permit many different degrees of need to be distinguished, to help in determining priorities and selecting intermediate goals.

CHAPTER 4

DESIGN OF THE HOUSING MARKET MODELS

Although the 1961 model was constructed first in the study program, the 1966 model is both more current and somewhat more complex and will be described first. The 1961 model and the 1961-66 trends will then be considered, followed by the future models and the forecasts used in their construction.

The 1966 Model

The 1966 housing market model comprises Tables 3, 4, 5, 6, and 7. To assist the reader in becoming familiar with the model a brief description of the layout of these tables is given.

There is one table for each of the four income ranges - low, lower middle, upper middle and high - and the last table represents the total picture for all income ranges combined. The tables are laid out to show the non-family individuals and each family size, with a sub-total for all the families combined and a grand total for the families and the non-family individuals combined. The size categories start with the individuals and proceed down the table with increasing family size. Within each size category there are five lines showing the relationship between income and shelter cost, broken down into five categories; these will be discussed more fully below.

The first column of figures in each table shows the number of "shelter units". A shelter unit was defined for study purposes as the accommodation occupied by a family or a non-family individual. Census definitions were used for family and non-family individual: a family consists of a husband and wife (with or without children who have never married), or a parent with one or more children never married; in either case all persons who constitute a family must live in the same dwelling. Adopted children and step-children of any age, and guardianship children under 21

TABLE 4

HOUSING MARKET MODEL, TORONTO CENSUS METROPOLITAN AREA, 1966.
LOWER MIDDLE INCOME INDIVIDUALS AND FAMILIES BY SIZE, BY RELATIONSHIP OF SHELTER COST TO INCOME AND BY ADEQUACY OF SHELTER.

QUALITY OF SHELTER UNITS																
COST WITHIN OR BEYOND INCOME	ALL SHELTER UNITS	ALL INADEQUATE UNITS					OWNER AND TENANT GROUPS					LODGER OCCUPIED UNITS				
		ADEQUATE		Condition Alone or Condition and Overcrowding			Condition Alone or Condition and Overcrowding		Condition and Sharing or Sharing and Overcrowding			Condition Alone or Condition and Overcrowding		Condition and Sharing or Sharing and Overcrowding		
		TOTAL	Condition Alone or Condition and Overcrowding	Sharing Alone or Sharing and Overcrowding	Overcrowding Alone	TOTAL	Condition Alone or Condition and Overcrowding	Sharing Alone or Sharing and Overcrowding	Overcrowding Alone	TOTAL	Condition Alone or Condition and Overcrowding	Sharing Alone or Sharing and Overcrowding	Overcrowding Alone	TOTAL	Condition Alone or Condition and Overcrowding	Sharing Alone or Sharing and Overcrowding
Non-Family Individuals	26676 26505 10683 15264 53234	22761 25805 10683 15264 46566	3915 753 311 442 4668	720 348 144 204 1068	3195 405 167 238 3600	9388 2800 1812 588 11788	4844 2625 1981 644 7469	207 314 130 184 521	133 201 83 118 334	513 204 14 20 547	3575 238 98 140 3813	5505 187 141 140 5692	23 2 1 1 24	144 4 3 44 148	5290 180 136 5470 3476	48 2 1 1 50
Two-person families	23778	13429	10349	448	259	9388	4844	425	110	4098	5505	23	144	5290	48	
Three-person families	27394	19852	8142	433	427	7091	4528	418	98	3615	3614	15	93	3476	30	
Four-person families	31739	26747	4992	426	1198	3280	3270	416	44	1633	1722	10	44	1647	21	
Five-person families	20746	17779	2967	239	1919	788	2556	234	11	403	411	5	10	385	11	
Six-person families	7257	4628	2629	88	1880	644	2290	86	8	321	339	2	9	323	5	
Seven-person families	3788	1468	2320	31	1895	384	2121	30	5	193	199	1	5	191	2	
Eight-plus person families	3115	958	2157	22	1897	232	2038	21	3	119	119	1	3	113	2	
Family Totals	118417	84861	33556	1687	9475	21807	21647	1630	279	10382	11909	57	308	11425	119	
TOTAL	145093	107622	37471	2407	12670	21807	21987	1837	279	10382	11909	57	308	11425	119	

TABLE 5

HOUSING MARKET MODEL, TORONTO CENSUS METROPOLITAN AREA, 1966.
UPPER MIDDLE INCOME INDIVIDUALS AND FAMILIES BY SIZE, BY RELATIONSHIP OF SHELTER COST TO INCOME AND BY ADEQUACY OF SHELTER.

QUALITY OF SHELTER UNITS											
IN ADEQUATE											
COST WITHIN OR BEYOND INCOME	ALL SHELTER UNITS	ADEQUATE	ALL INADEQUATE UNITS			OWNER AND TENANT OCCUPIED UNITS			LODGER OCCUPIED UNITS		
			Condition Alone or Condition and Overcrowding	Condition Alone or Condition and Overcrowding	Sharing Alone or Sharing and Overcrowding	Condition Alone or Condition and Overcrowding	Condition Alone or Condition and Overcrowding	Sharing Alone or Sharing and Overcrowding	Condition Alone or Condition and Overcrowding	Condition Alone or Condition and Overcrowding	Sharing Alone or Sharing and Overcrowding
SIZE		TOTAL				TOTAL			TOTAL		
Non-Family Individuals											
Two-person families	Within	34971	985	140	845	146	68	151	89	72	767
	Remainder	15406	434	61	373	65	30	35	369	31	338
	- Between	14972	434	41	295	255	15	14	251	21	230
	- Beyond	10202	295	20	119	21	10	11	118	10	108
	Total	49099	1319	201	1218	211	98	113	1208	103	1105
Three-person families											
Two-person families	Within	47866	3153	109	2857	1772	106	1531	1381	3	1326
	Remainder	7945	523	18	474	294	17	254	229	6	220
	- Between	6435	454	16	411	255	15	220	199	1	191
	- Beyond	1056	987	2	63	39	2	34	30	4	29
	Total	59811	52135	127	3331	2066	123	1785	1610	43	1546
Three-person families	Within	19913	17606	85	2017	1335	83	1081	972	2	916
	Remainder	1001	885	5	101	66	4	54	50	1	47
	- Between	885	116	5	101	66	4	54	50	1	47
	- Beyond	20914	2423	90	2118	1401	87	1135	1022	3	933
	Total	19913	18491	180	2219	1541	91	1236	1122	5	1030
Four-person families	Within	19813	18374	86	925	1021	84	496	448	2	429
	Remainder	1674	1550	7	78	86	7	42	38	1	36
	- Between	1550	124	7	78	86	7	42	38	1	36
	- Beyond	21517	19924	93	1003	1107	91	538	486	2	465
	Total	19813	18491	180	2219	1541	91	1236	1122	5	1030
Five-person families	Within	10448	9479	47	286	856	46	121	113	1	105
	Remainder	401	363	2	9	34	2	5	4	4	4
	- Between	401	363	2	9	34	2	5	4	4	4
	- Beyond	10849	9842	49	235	890	48	126	117	1	109
	Total	10448	9479	51	305	920	50	132	117	2	113
Six-person families	Within	3836	2920	17	187	825	17	100	91	2	87
	Remainder	182	139	3	9	39	1	5	4	4	4
	- Between	182	139	3	9	39	1	5	4	4	4
	- Beyond	4018	3059	18	196	864	18	105	95	2	91
	Total	3836	2920	20	206	920	20	110	95	4	101
Seven-person families	Within	1557	715	6	115	787	6	62	55	1	53
	Remainder	32	15	2	2	16	1	1	1	1	1
	- Between	32	15	2	2	16	1	1	1	1	1
	- Beyond	1589	730	6	117	803	6	63	56	1	54
	Total	1557	715	8	127	803	8	65	56	2	57
Eight-plus person families	Within	962	190	4	69	738	4	37	34	1	32
	Remainder	4	1	3	3	3	3	3	3	3	3
	- Between	4	1	3	3	3	3	3	3	3	3
	- Beyond	966	191	4	69	741	4	37	34	1	32
	Total	962	190	7	72	741	7	40	37	4	35
Family Totals	Within	10425	9397	354	6396	7334	346	3428	3094	8	2968
	Remainder	11239	10375	33	673	538	31	361	326	2	312
	- Between	10183	9388	31	610	499	29	327	296	2	283
	- Beyond	1056	987	2	63	39	2	34	30	1	29
	Total	115664	104372	387	7069	7872	377	3789	3420	10	3280
TOTAL	Within	139196	127983	494	6396	7480	414	3428	3933	80	2968
	Remainder	26645	25347	94	673	603	61	361	695	33	312
	- Between	20680	19590	72	603	543	49	327	547	23	283
	- Beyond	5965	5757	22	63	60	12	34	148	10	108
	Total	166041	153330	588	7069	8083	475	3789	4628	113	3280

TABLE 6

HOUSING MARKET MODEL, TORONTO CENSUS METROPOLITAN AREA, 1966.
HIGH INCOME INDIVIDUALS AND FAMILIES BY SIZE, BY RELATIONSHIP OF SHELTER COST TO INCOME AND BY ADEQUACY OF SHELTER

QUALITY OF SHELTER UNITS													
IN ADEQUATE													
COST WITHIN OR BEYOND INCOME	ALL SHELTER UNITS	ADEQUATE				ALL INADEQUATE UNITS				OWNER AND TENANT OCCUPIED UNITS			
		TOTAL	Condition Alone or Condition and Overcrowding	Condition Alone or Condition and Overcrowding	Sharing Alone or Sharing and Overcrowding	TOTAL	Condition Alone or Condition and Overcrowding	Condition Alone or Condition and Overcrowding	Sharing Alone or Sharing and Overcrowding	TOTAL	Condition Alone or Condition and Overcrowding	Condition Alone or Condition and Overcrowding	Sharing Alone or Sharing and Overcrowding
Non-Family Individuals	32595	32414	181	4	177	37	4	33	144	37	1	144	144
	3220	3213	7	1	6	7	1	6		1	1		
	2841	2835	6	1	5	6	1	5		1	1		
	379	378	1	1	183	1	1	1	144	1	1		144
	35815	35827	188	5		44	5	39					
Two-person families	47699	46783	916	4	39	703	4	37	213	37	6	205	2
	974	966	8	1	1	8	1	1		1	1		
	974	966	8	1	1	8	1	1		1	1		
	48673	47749	924	5	40	711	5	38	213	38	6	205	2
Three-person families	24453	23840	613	4	52	479	4	51	134	51	4	129	1
	132	132											
	132	132											
	24585	23972	613	4	52	479	4	51	134	51	4	129	1
Four-person families	21558	21130	428	4	160	364	4	159	64	159	2	61	1
	21558	21130	428	4	160	364	4	159	64	159	2	61	1
Five-person families	12923	12616	307	2	244	293	2	244	14	244		14	
	12923	12616	307	2	244	293	2	244	14	244		14	
Six-person families	4777	4474	303	1	251	291	1	251	12	251		12	
	4777	4474	303	1	251	291	1	251	12	251		12	
Seven-person families	1629	1348	281	1	250	274	1	250	7	250		7	
	1629	1348	281	1	250	274	1	250	7	250		7	
Eight-plus person families	891	635	256		239	252		239	4	239		4	
	891	635	256		239	252		239	4	239		4	
Family Totals	113930	110826	3104	15	1235	2656	15	1235	44	1235	12	432	4
	1106	1098	8	1	1	8	1	1		1			
	1106	1098	8	1	1	8	1	1		1			
	115036	111924	3112	16	1236	2664	16	1236	448	1232	12	432	4
TOTAL	146525	143240	3285	19	1412	2693	19	1412	592	1261	12	432	148
	4326	4311	15	2	7	15	2	7		7			
	3947	3933	14	2	6	14	2	6		6			
	379	378	1	1	1	1	1	1		1			
	150951	147551	3300	21	1419	2708	21	1419	592	1271	12	432	148

are counted as own children. A non-family individual is one who lives alone, who lives with unrelated persons, or who lives with relatives but not in a husband-wife or parent-child relationship.

When a dwelling unit (as defined by the census) is occupied by a single family or non-family individual, it is equivalent to a shelter unit. But when a dwelling unit is occupied by two or more families and/or non-family individuals, the portion of the dwelling unit occupied by each is considered to be a shelter unit. Thus the number of shelter units is greater than the number of occupied dwellings by the number of lodging families and lodging non-family individuals.

The next column in the tables shows the number of shelter units classified as adequate according to the definition used. The remaining columns show the number of inadequate shelter units. The categories of inadequacy and adequacy have been described in the preceding chapter. The inadequacy columns are arranged in three main groups, showing first all the inadequate shelter units, then those occupied by owners and tenants, and last those occupied by lodgers. Within each of these groups, a breakdown is given by the four types of inadequacy.

Thus, the number found with any combination of income range, family size, shelter-cost-to-income relationship, and degree of adequacy of shelter, can be read directly from the model.

Returning to the shelter-cost-to-income relationships, these were measured by the two scales which were described in the previous chapter. In the model tables, the categories determined by the application of these two scales are set out on five lines. The first line shows the number paying shelter costs within their incomes according to the O.H.C. scale. The second line shows the remainder, that is all those paying shelter costs beyond their incomes according to the O.H.C. scale. This remainder is then in effect broken down into two parts by the application of the second scale. The

first part has been labeled "between" because it includes the number paying between the O.H.C. scale and the second scale; the second part is labeled "beyond", and includes those paying shelter costs beyond their incomes as measured by the second scale, which is 50% greater than the O.H.C. scale. The last line is the total number of families or non-family individuals as the case may be, within each size category.

With regard to the income ranges, it was decided that the low income category should correspond to that served by public housing. For this purpose, the effective income cut-off point for tenants of Ontario Housing Corporation units in the Metropolitan Toronto area was determined and applied to the families of three or more persons as of 1966. For the non-family individuals and two-person families, the effective upper limit for the low income range was determined in the light of the Guides for Family Budgeting published by the Social Planning Council of Metropolitan Toronto. This gave an upper limit for the whole low income range as of 1966. It was necessary that the income ranges to be used should be comparable throughout the study period, and accordingly the next step was to express this upper limit of the low income range for 1961 in terms of constant 1966 dollars. Thus, because of the relatively greater buying power of the 1961 dollar, the upper limit of the low income range in 1961 would be represented by fewer 1966 dollars.

To determine the upper limit of the middle income range, it was decided that this should be set at a level above which it could be assumed that families and non-family individuals would be able to secure adequate accommodation within their incomes in the private market. The determination of this line was again made in the light of data contained in the Guides for Family Budgeting of the Social Planning Council. The resulting limits for the three income ranges in 1961 and 1966 are presented in Table 8.

TABLE 8 DEFINED INCOME RANGES 1961 AND 1966, IN CONSTANT 1966 DOLLARS

	INDIVIDUALS \$	Family Size						
		Two \$	Three \$	Four \$	Five \$	Six \$	Seven \$	Eight-Plus \$
Upper Limit of the Low Income Range								
1961	2496	3328	5214	5214	5214	5214	5214	5214
1966	2700	3600	5640	5640	5640	5640	5640	5640
Upper Limit of the Middle Income Range								
1961	5546	7395	8504	9521	10446	11278	12017	12942
1966	6000	8000	9200	10300	11300	12200	13000	14000
Dividing Line Between the Lower Middle and Upper Middle Income Segments in the 1966 Models	4350	5800	7420	7970	8470	8920	9320	9820

In the 1966 model, the middle income range was given a further breakdown into the lower middle and upper middle segments. The dividing line was taken as the point half-way between the bottom and top of the middle income range for each size category, thus splitting the middle income range into two equal parts.

With regard to the size categories used, these refer simply to either the non-family individuals (one person) or to families by size in terms of the total number of persons counted as family members.

So much for the design of the 1966 model. By combining four income groups, eight size categories, three shelter-cost-to-income categories, and five shelter-adequacy categories, it has been made highly flexible with regard to the many possible definitions or degrees of need, and the possibility of further interpolation within the various model categories will permit reasonably reliable estimates to be made for other categories not given.

A full description of the way in which the model was constructed will be found in the Appendix, published under separate cover.

The 1961 Model

The 1961 model is identical to that for 1966, with two exceptions: the middle income range has not been divided into the lower middle and upper middle ranges, and only one shelter-cost-to-income scale (the O.H.C. scale) has been employed. The 1961 model comprises Tables 9, 10, 11, and 12.

As mentioned before, the 1961 model was constructed first, using all the pertinent cross-tabulations available from the last census of housing, augmented by additional data from other sources and special cross-tabulating techniques developed for the study. The 1966 model was then prepared by up-dating each of the 1961 variables.

TABLE 9
HOUSING MARKET MODEL, TORONTO CENSUS METROPOLITAN AREA, 1961.
LOW INCOME INDIVIDUALS AND FAMILIES BY SIZE, BY RELATIONSHIP OF SHELTER COST TO INCOME AND BY ADEQUACY OF SHELTER.

SIZE	COST WITHIN OR BEYOND INCOME	ALL SHELTER UNITS	QUALITY OF SHELTER UNITS									
			ADEQUATE					IN ADEQUATE				
			TOTAL	Condition Alone or Condition and Overcrowding	Sharing Alone or Sharing and Overcrowding	Overcrowding Alone	TOTAL	Condition Alone or Condition and Overcrowding	Sharing Alone or Sharing and Overcrowding	Overcrowding Alone	TOTAL	Condition Alone or Condition and Overcrowding
Non-Family Individuals	Within	14552	12975	349		1228	43	31		12	1534	318
	Beyond	96356	87962	2432		5962	1330	966		364	7064	1466
	Total	110908	100937	2781		7190	1373	997		376	3598	1784
Two-person families	Within	6988	2659	179		69	1401	163		48	2928	16
	Beyond	40183	19674	1150	137	402	3223	1087	266	318	11186	63
	Total	47171	22333	1329	777	471	10724	1250	306	366	14114	79
Three-person families	Within	16641	10793	261		161	1945	243		134	3903	20
	Beyond	37281	26997	674	182	395	5225	647	53	1517	5059	27
	Total	53922	37790	935	491	556	7170	808	194	493	3962	47
Four-person families	Within	13427	10367	258		422	1366	243		405	1694	15
	Beyond	34834	28411	701	80	1167	3847	683	24	1140	2576	18
	Total	48261	38778	959	233	1589	5213	926	92	1545	4270	33
Five-person families	Within	5607	4225	119		771	1024	113		763	358	6
	Beyond	18011	14262	393	17	225	3085	381	5	2210	664	12
	Total	23618	18487	512	55	2996	4109	494	17	2973	1022	18
Six-person families	Within	2076	1184	41		508	655	39		505	237	2
	Beyond	7585	3128	156	12	1956	2524	150	4	1948	604	6
	Total	9661	5641	197	46	2464	3179	189	18	2453	841	8
Seven-person families	Within	931	40	17		606	699	16		604	192	1
	Beyond	2485	65	52	8	1834	2122	50	3	1832	298	2
	Total	3416	105	69	23	2440	2821	66	11	2436	490	3
Eight-plus person families	Within	809	6	18		624	706	17		622	97	1
	Beyond	1466	13	34	11	1106	1294	31	4	1103	199	3
	Total	2275	19	52	16	1730	1960	48	6	1725	296	4
Family Totals	Within	46479	29274	893		3161	7796	832		3752	9409	61
	Beyond	141845	98719	3160	441	9085	27380	3029	131	8910	20586	131
	Total	188324	128153	4053	1641	12246	35176	3861	649	11991	29995	192
TOTAL	Within	61031	42249	1242		4389	7839	863	131	3752	10943	379
	Beyond	238201	181841	5592	441	15047	28710	3925	518	9274	27650	1597
	Total	299232	224090	6834	1641	19436	36549	4858	649	12367	38593	1976

TABLE 10

TABLE A-69. HOUSING MARKET MODEL, TORONTO CENSUS METROPOLITAN AREA, 1961.
MIDDLE INCOME INDIVIDUALS AND FAMILIES BY SIZE, BY RELATIONSHIP OF SHELTER COST TO INCOME AND BY ADEQUACY OF SHELTER.

SIZE	COST WITHIN OR BEYOND INCOME	ALL SHELTER UNITS	QUALITY OF SHELTER UNITS									
			ADEQUATE					IN ADEQUATE				
			TOTAL	Condition Alone or Condition and Overcrowding	Sharing Alone or Sharing and Overcrowding	Overcrowding Alone	TOTAL	Condition Alone or Condition and Overcrowding	Sharing Alone or Sharing and Overcrowding	Overcrowding Alone	TOTAL	Condition Alone or Condition and Overcrowding
Non-family individuals	Within	57195	51443	1266		4486	552	365		187	5200	901
	Beyond	19906	1180	612		568	834	552		282	346	60
	Total	77101	6932	1878		5054	1386	917		469	5546	961
Two-person families	Within	53914	38144	15770	788	365	7290	747		296	8430	41
	Beyond	22458	18220	4218	405	162	3590	404		160	288	1
	Total	76372	56364	20008	1193	527	11240	1151		456	8768	42
Three-person families	Within	37075	24707	12368	760	596	6800	734		554	5568	26
	Beyond	3662	2005	757	82	61	756	82		61	1	1
	Total	40737	27612	13145	842	657	7556	816		615	5569	26
Four-person families	Within	30351	22823	7528	750	1683	4876	732		1654	2652	18
	Beyond	4671	3869	802	120	272	802	120		272	272	18
	Total	35022	26692	8330	870	1955	5678	852		1926	2652	18
Five-person families	Within	23744	18178	5566	420	3922	4932	411		594	634	9
	Beyond	2421	1911	510	43	403	510	43		62	403	9
	Total	26165	20089	6076	463	4325	5442	454		4309	634	9
Six-person families	Within	8622	4829	3793	154	2640	3272	150		2633	521	4
	Beyond	1319	793	526	24	423	526	24		423	403	4
	Total	9941	5622	4319	178	3063	3798	174		3056	521	4
Seven-person families	Within	3215	171	3044	54	2396	2739	52		2393	305	2
	Beyond	412	16	396	8	345	396	8		345	2	2
	Total	3627	187	3440	62	2741	3135	60		2738	305	2
Eight-plus person families	Within	2162	57	2105	42	1703	1922	40		1700	183	2
	Beyond	174	4	170	4	149	170	4		149	183	2
	Total	2336	61	2275	46	1852	2092	44		1849	183	2
Family Totals	Within	159083	108909	50174	2968	13305	31831	2866		15300	18343	102
	Beyond	35117	27718	7399	686	1815	7110	685		1813	289	1
	Total	194200	136627	57573	3654	15120	38941	3551		14949	18632	103
TOTAL	Within	216278	160352	55926	4234	17791	32883	3231		15300	23543	1003
	Beyond	55023	46444	8579	1298	2383	7944	1237		2095	635	61
	Total	271301	206796	64505	5532	20174	40327	4468		19755	24178	1064

TABLE 11

HOUSING MARKET MODEL, TORONTO CENSUS METROPOLITAN AREA, 1961.
HIGH INCOME INDIVIDUALS AND FAMILIES BY SIZE, BY RELATIONSHIP OF SHELTER COST TO INCOME AND BY ADEQUACY OF SHELTER.

		QUALITY OF SHELTER UNITS									
		IN ADEQUATE					TENANT OCCUPIED UNITS				
SIZE	COST WITHIN OR BEYOND INCOME	ALL SHELTER UNITS	ALL INADEQUATE UNITS			OWNER AND TENANT OCCUPIED UNITS			LODGER OCCUPIED UNITS		
			ADAPTABLE	TOTAL	Condition Alone or Condition and Overcrowding	Sharing Alone or Sharing and Overcrowding	Overcrowding Alone	TOTAL	Condition Alone or Condition and Overcrowding	Sharing Alone or Sharing and Overcrowding	Overcrowding Alone
Non-Family Individuals	Within	14544	14353	191	5	5	186	40	5	35	151
	Beyond	1319	1312	7	1	7	6	7	1	6	151
	Total	15863	15665	198	6	6	192	47	6	41	151
Two-person families	Within	35988	34923	1065	8	8	40	811	8	38	254
	Beyond	254	245	9	1	1	1	9	1	1	2
	Total	36242	35168	1074	9	9	41	820	9	39	254
Three-person families	Within	16569	15859	710	6	6	54	550	6	53	160
	Beyond	16569	15859	710	6	6	54	550	6	53	160
	Total	33138	31718	1420	12	12	108	1100	12	106	320
Four-person families	Within	23134	22651	483	6	6	168	406	6	167	77
	Beyond	23134	22651	483	6	6	168	406	6	167	77
	Total	46268	45302	966	12	12	336	812	12	334	154
Five-person families	Within	4454	4121	333	3	3	257	314	3	256	19
	Beyond	4454	4121	333	3	3	257	314	3	256	19
	Total	8908	8242	666	6	6	514	628	6	512	38
Six-person families	Within	2057	1731	326	1	1	264	311	1	264	15
	Beyond	2057	1731	326	1	1	264	311	1	264	15
	Total	4114	3462	652	2	2	528	622	2	528	30
Seven-person families	Within	861	563	298	1	1	263	290	1	263	8
	Beyond	861	563	298	1	1	263	290	1	263	8
	Total	1722	1126	596	2	2	526	580	2	526	16
Eight-plus person families	Within	654	382	272	1	1	251	267	1	251	5
	Beyond	654	382	272	1	1	251	267	1	251	5
	Total	1308	764	544	2	2	502	534	2	502	10
Family Totals	Within	83717	80230	3487	24	24	1297	2949	24	1292	538
	Beyond	254	245	9	1	1	1	9	1	1	5
	Total	83971	80475	3496	25	25	1298	2958	25	1293	543
TOTAL	Within	94261	94583	3678	29	29	1483	2989	29	1327	689
	Beyond	1573	1557	16	2	2	7	16	2	7	156
	Total	95834	96140	3694	31	31	1490	3005	31	1334	845

TABLE 12

TABLE A-71. HOUSING MARKET MODEL, TORONTO CENSUS METROPOLITAN AREA, 1961.
ALL INDIVIDUALS AND FAMILIES BY SIZE, BY RELATIONSHIP OF SHELTER COST TO INCOME AND BY ADEQUACY OF SHELTER.

SIZE	COST WITHIN OR BEYOND INCOME	ALL SHELTER UNITS	QUALITY OF SHELTER UNITS									
			ADEQUATE					IN ADEQUATE				
			TOTAL	Condition Alone or Condition and Overcrowding	ALL INADEQUATE UNITS Condition and Sharing or Condition, Sharing and Overcrowding	Sharing Alone or Sharing and Overcrowding	Overcrowding Alone	TOTAL	Condition Alone or Condition and Overcrowding	OWNER AND TENANT OCCUPIED UNITS Condition and Sharing or Condition, Sharing and Overcrowding	Sharing Alone or Sharing and Overcrowding	Overcrowding Alone
Non-Family Individuals	Within	86291	78771	7220	1620	5900		635	401			
	Beyond	117581	9581	3045	6536	12436		2171	1519			
	Total	203872	186771	17101	4665	18436		2806	1920			
Two-person families	Within	96890	75726	21154	975	474		9502	918	273	7929	382
	Beyond	62895	38139	24756	1556	565		13282	1492	381	10930	479
	Total	159785	113865	45920	2531	1039		22784	2410	654	18859	861
Three-person families	Within	70285	51359	18926	1027	811		9095	981	254	7319	741
	Beyond	40943	29902	11041	796	456		5981	729	162	4670	168
	Total	111228	81261	29967	1783	1267		15276	1710	416	11989	909
Four-person families	Within	66912	55841	11071	1014	2273		6648	981	115	3326	2226
	Beyond	39505	32280	7225	821	1439		4649	803	82	2352	1412
	Total	106417	88121	18296	1835	3712		11297	1784	197	5678	3638
Five-person families	Within	33805	26524	7281	542	4950		6270	527	28	700	4925
	Beyond	20432	16173	4259	436	2628		3595	424	19	539	2613
	Total	54237	42697	11540	978	7578		9865	951	47	1329	7538
Six-person families	Within	12755	7744	5011	196	3412		4238	190	22	624	3402
	Beyond	8904	5250	3654	180	2379		3050	174	17	2371	2371
	Total	21659	12994	8665	376	5791		7288	364	39	1112	5773
Seven-person families	Within	5007	4233	774	71	3265		3728	68	13	387	3260
	Beyond	2897	2816	81	60	2179		2518	58	10	273	2177
	Total	7904	7049	855	131	5444		6246	126	23	660	5437
Eight-plus person families	Within	3625	3180	60	60	2578		2895	57	9	256	2573
	Beyond	1640	1623	38	38	1255		1424	35	5	132	1252
	Total	5265	4803	98	98	3833		4319	92	14	388	3825
Family Totals	Within	289279	218413	70866	3885	17763		42576	3722	714	20631	17509
	Beyond	177216	121842	53374	3847	10901		34499	3715	676	19384	10724
	Total	466495	340255	126240	7732	28664		77075	7437	1390	40015	28233
TOTAL	Within	375570	297184	78186	5505	23663		43211	4123	714	20631	17543
	Beyond	294797	614955	6892	6892	17437		36670	5234	676	19384	11376
	Total	670367	527026	143341	12397	41100		79881	9357	1390	40015	29119
TOTAL	Within	5666	5666	5666	5666	5666		5666	5666	5666	5666	5666
	Beyond	5884	5884	5884	5884	5884		5884	5884	5884	5884	5884
	Total	11550	11550	11550	11550	11550		11550	11550	11550	11550	11550

1961-66 Trends

Between 1961 and 1966, the number of families in the Toronto Census Metropolitan Area increased from 466,495 to 534,734 and the number of non-family individuals rose from 203,872 to 237,179. Thus, the total number of occupied shelter units increased over the period from 670,367 to 771,913. The number of occupied dwelling units - corresponding to the number of shelter units occupied by owners and tenants - increased from 482,490 to 586,581. Thus while the shelter units increased by 101,546 or 15.1%, the number of dwelling units rose by 104,091 or 21.6%. Consequently the ratio of shelter units to dwelling units dropped over the period from 1.39:1 to 1.32:1, indicating a nominal improvement in the overall housing situation. If all families and non-family individuals had their own dwelling units, the number of shelter units and dwelling units would of course be equal and the ratio would be 1:1.

A comparison of the family size and income distributions for the two years is given in Tables 13 and 14. Average persons per family increased over the period from 3.4 to 3.5, in contrast to the average number of persons per household or occupied dwelling, which dropped from 3.7 to 3.6.

Census data on incomes is only available for 1961 and not 1966. The income data for the 1966 model was therefore estimated on the basis of taxation statistics and other pertinent material. As mentioned before the concept of gross income is used in the models, for families and non-family individuals. Similarly, gross or serviced shelter cost figures have been used throughout.

In the case of the income and shelter cost figures for the two years, these have been expressed in the models in terms of actual current dollars of the respective years, because this was the form in which the data was available. The 1966 shelter payment to income scale was considered to be applicable to 1961 because the scale represents the ratios of shelter

TABLE 13 ALL NON-FAMILY INDIVIDUALS AND FAMILIES BY SIZE, BY TOTAL INCOME,
TORONTO CENSUS METROPOLITAN AREA, 1961.

INCOME	FAMILIES								GRAND TOTAL	
	INDIVIDUALS	2 Persons	3 Persons	4 Persons	5 Persons	6 Persons	7 Persons	8+ Persons		Total
No Income	14187	1309	41						1350	15537
Under \$ 1000	44393	6087	2677	1729	912	427	156	103	12091	56484
\$ 1000 - \$ 1999	34781	13428	3323	2202	901	449	164	109	20576	55357
\$ 2000 - \$ 2999	35287	15468	7343	5223	2392	1040	380	253	32100	67387
\$ 3000 - \$ 3999	36548	21799	13551	11384	5369	2182	796	530	55611	92159
\$ 4000 - \$ 4999	18340	21981	17165	16624	8383	3242	1183	787	69365	87705
\$ 5000 - \$ 5999	8660	19558	17661	17761	8744	3679	1343	893	69639	78299
\$ 6000 - \$ 6999	4312	16879	13918	13465	6637	2544	928	618	54989	59301
\$ 7000 - \$ 7999	2156	13915	11440	10636	5192	1940	708	472	44303	46459
\$ 8000 - \$ 9999	2247	14936	11986	12727	6359	2552	931	622	50113	52360
\$10000 - \$14999	2221	9856	8481	10029	6026	2245	819	547	38003	40224
\$15000 +	740	4569	3642	4637	3321	1359	496	331	18355	19095
Total	203872	159785	111228	106417	54237	21659	7904	5265	466495	670367

TABLE 14 ALL NON-FAMILY INDIVIDUALS AND FAMILIES BY SIZE, BY TOTAL INCOME,
TORONTO CENSUS METROPOLITAN AREA, 1966.

INCOME	INDIVIDUALS	FAMILIES							GRAND TOTAL
		2 Persons	3 Persons	4 Persons	5 Persons	6 Persons	7 Persons	8+ Persons	
No Income	11021	545	13					558	11579
Under \$ 1000	35135	2539	1004	689	392	200	77	53	40139
\$ 1000 - \$ 1999	30355	6110	409	937	413	227	88	57	38596
\$ 2000 - \$ 2999	30349	7155	2998	2266	1121	532	210	140	44771
\$ 3000 - \$ 3999	31854	10222	5611	5007	2548	1133	446	301	57122
\$ 4000 - \$ 4999	35069	18513	14094	14502	6453	3343	1315	884	94173
\$ 5000 - \$ 5999	27581	28727	21812	22042	13008	5994	2129	1441	122734
\$ 6000 - \$ 6999	12226	25753	18749	19271	10257	4301	1696	1148	93401
\$ 7000 - \$ 7999	7000	24313	17646	17434	9187	3759	1484	1000	81823
\$ 8000 - \$ 9999	7628	25121	17801	20082	10835	4162	1874	1267	88770
\$10000 - \$14999	6663	15911	12085	15190	9856	4025	1586	1069	66385
\$15000 +	2298	7641	5378	7280	5630	2524	995	674	32420
Total	237179	172600	117600	124700	69700	30200	11900	8034	771913

payment to income. In the selection of the low, middle and high income ranges however, the 1961 ranges were expressed in terms of 1966 dollar values to achieve comparability.

From a comparison of the 1961 and 1966 income figures, expressed in the actual or current dollars of each year, the average income of families and non-family individuals together increased from \$5,341 to \$6,469, a rise of 21.1% over the period. These averages include the families and non-family individuals with no income; if they are excluded, the increase was from \$5,468 to \$6,568 or 20.1%.

A comparison of the family size and shelter cost distributions for the two years is given in Tables 15 and 16, and a breakdown of the 1966 costs for owners, tenants and lodgers is given in Table 17. Between 1961 and 1966 the average cost for owners rose from \$115.75 per month to \$136.35, an increase of 17.9%. Tenant costs rose nearly as much from an average of \$105.32 per month to \$121.33, an increase of 15.2%. In the case of lodgers, the increase was not as sharp: from \$40.90 per month on the average to \$44.66, a rise of only 9.2%.

Thus, although the 1961-66 period was one of rising housing costs, it is evident that incomes on the average were rising even faster, and that there was a resulting nominal improvement in the overall housing market situation. It is however, the overall picture that is referred to here, and not the market for new housing. The costs of new housing were rising much more steeply, and this was offset in the overall picture by a relatively slower increase in the average costs of older housing. In the case of many owner occupied dwellings, the mortgages were paid off during the period, and the monthly shelter costs actually decreased.

An improvement in the overall adequacy of the housing stock was also evident over the period, as shown in Tables 18 and 19. In terms of occupied dwelling units, the number classified as inadequate according to

TABLE 15 ALL NON-FAMILY INDIVIDUALS AND FAMILIES BY SIZE, BY GROSS SHELTER COST,
TORONTO CENSUS METROPOLITAN AREA, 1961.

MONTHLY SHELTER COST	INDIVIDUALS	FAMILIES								GRAND TOTAL
		2 Persons	3 Persons	4 Persons	5 Persons	6 Persons	7 Persons	8+ Persons	Total	
No Cost	15499	3324	1348	918	425	219	96	52	6383	21882
Under \$20	4316	374	167	45	6	3		1	596	4912
\$ 20 - \$ 29	28052	1639	214	73	33	5	2	1	1967	30019
\$ 30 - \$ 39	63541	13943	733	132	19	13	13	6	14859	78400
\$ 40 - \$ 49	17484	22651	7295	4336	2496	2715	25	56	39574	57058
\$ 50 - \$ 59	15774	11632	8198	2069	602	130	1226	75	23932	39706
\$ 60 - \$ 69	12127	11098	8344	6128	1292	309	198	567	27936	40063
\$ 70 - \$ 79	4240	7757	8010	6585	6035	1051	652	218	30308	34548
\$ 80 - \$ 89	4309	8683	7674	9205	4767	699	368	246	31642	35951
\$ 90 - \$ 99	8311	7385	5300	11005	1240	725	309	2470	28434	36745
\$100 - \$109	9014	14089	10989	9898	2821	1258	1008	222	40285	49299
\$110 - \$119	3465	14029	7655	8419	2485	766	290	272	33916	37381
\$120 - \$129	3936	7719	14931	10428	9976	3742	183	144	47123	51059
\$130 - \$149	3748	14865	12938	16381	8976	3292	1415	284	58151	61899
\$150 +	10056	20597	17432	20795	13063	6732	2119	651	81389	91445
Total	203872	159785	111228	106417	54237	21659	7904	5265	466495	670367

TABLE 16

ALL NON-FAMILY INDIVIDUALS AND FAMILIES BY SIZE, BY GROSS SHELTER COST,
TORONTO CENSUS METROPOLITAN AREA, 1966.

MONTHLY SHELTER COST \$	FAMILIES								GRAND TOTAL	
	INDIVIDUALS	2 Persons	3 Persons	4 Persons	5 Persons	6 Persons	7 Persons	8+ Persons		Total
No Cost	17344	1933	717	459	226	106	53	36	3530	20874
Under 20	3073	107	13	4	2	1		1	128	3201
20- 29	17292	2261	112	18	4	2	4	4	2405	19697
30- 39	24255	18212	5310	3217	2044	1289	3	20	30095	54350
40- 49	28553	11656	6444	1946	618	122	1230	107	22123	50676
50- 59	24117	13180	8969	6632	1554	336	246	884	31801	55918
60- 69	11624	9368	8750	7242	4862	543	824	361	31950	43574
70- 79	6426	7734	6199	7474	4258	566	343	293	26867	33293
80- 89	13840	6485	4212	7761	1089	581	285	2281	22694	36534
90- 99	10291	9602	6782	6151	1937	781	722	215	26190	36481
100-109	8059	17039	8408	8319	3023	846	367	442	38444	46503
110-119	5651	6643	11600	8158	8588	2933	162	170	38454	43905
120-129	6457	12948	10190	11991	7834	2613	1293	333	47202	53659
130-149	12428	26271	22967	11675	16685	2526	1842	552	82518	94946
150-174	18152	11081	6432	16588	6451	6443	1720	887	49602	67754
175-199	13853	8457	4909	12659	4923	4917	1313	677	37855	51708
200-249	9554	5832	3385	8731	3395	3391	905	467	26106	35660
250 +	6210	3791	2201	5675	2207	2204	588	304	16970	23180
Total	237179	172600	117600	124700	69700	30200	11900	8034	534734	771913

TABLE 17 DISTRIBUTION OF SHELTER COSTS, TORONTO CENSUS METROPOLITAN AREA, 1966.

MONTHLY SHELTER COST \$	OWNERS		TENANTS		FORCERS		TOTAL	
	No.	%	No.	%	No.	%	No.	%
No Cost			3434	1.53	17440	9.41	20874	2.70
Under 20			180	0.08	3021	1.63	3201	0.41
20- 29	2897	0.80	1010	0.45	15790	8.52	19697	2.55
30- 39	7967	2.20	1885	0.84	44498	24.01	54350	7.04
40- 49	12675	3.50	2918	1.30	35083	18.93	50676	6.57
50- 59	19194	5.30	7182	3.20	29542	15.94	55918	7.24
60- 69	14848	4.10	8080	3.60	20646	11.14	43574	5.65
70- 79	14124	3.90	10773	4.80	8396	4.53	33293	4.31
80- 89	17745	4.90	13915	6.20	4874	2.63	36534	4.73
90- 99	14486	4.00	19975	8.90	2020	1.09	36481	4.73
100-109	22091	6.10	22892	10.20	1520	0.82	46503	6.02
110-119	18832	5.20	24239	10.80	834	0.45	43905	5.69
120-129	28247	7.80	24912	11.10	500	0.27	53659	6.95
130-149	57581	15.90	37031	16.50	334	0.18	94946	12.31
150-174	43002	11.88	23918	10.66	834	0.45	67754	8.78
175-199	41697	11.51	10011	4.46			51708	6.70
200-249	27127	7.49	8533	3.80			35660	4.62
250 +	19632	5.42	3548	1.58			23180	3.00
Total	362145	100.00	224436	100.00	185332	100.00	771913	100.00

TABLE 18 OCCUPIED DWELLINGS, ADEQUATE AND INADEQUATE BY TYPE OF INADEQUACY,
TORONTO CENSUS METROPOLITAN AREA, 1961

Adequate		402609
Inadequate:		
	crowded only	29119
	shared only	24927
	in poor condition only	7253
	crowded and shared	15088
	crowded and in poor condition	2104
	shared and in poor condition	390
	crowded, shared and in poor condition	1000
	total inadequate	79881
Total		482490

TABLE 19 OCCUPIED DWELLINGS, ADEQUATE AND INADEQUATE BY TYPE OF INADEQUACY,
TORONTO CENSUS METROPOLITAN AREA, 1966.

Adequate	516749
Inadequate: crowded only	27756
shared only	21502
in poor condition only	4893
crowded and shared	13324
crowded and in poor condition	1420
shared and in poor condition	263
crowded, shared and in poor condition	674
total inadequate	69832
Total	586581

the study definitions decreased from 79,881 to 69,832. Since the total stock increased by over 100,000 units in this period, the proportion of the total classified as inadequate dropped sharply from 16.6% to 11.9%. Considering shelter units rather than dwelling units, the relative improvement was almost as great, the inadequate units decreasing from 143,341 to 123,637 and from 21.4% of the total to 16.0%. Each of the four inadequacy categories in the models showed a decrease over the period.

The effect of the above changes on housing needs between 1961 and 1966 will be discussed in the next chapter.

The Future Models

The future models have a format quite different from those constructed for 1961 and 1966. This reflects the normative or "ideal" concept used in their design. In brief their purpose is not to serve as "realistic" estimates of future conditions, based on certain assumed trends, but rather to show in quantitative terms the conditions which must be met if certain housing goals are to be achieved. The postulated goals are the provision of adequate shelter for all families and non-family individuals in the Metropolitan Toronto Planning Area, at shelter costs within their incomes according to the O.H.C. scale.

The technique employed still required the preparation of future estimates for the number of non-family individuals and families by size, the distribution of incomes, the number of 1966 housing units surviving in the future and the cost distribution for these units, and the number of non-family individuals finding their accommodation in lodgings rather than households of their own. By definition, all inadequate housing was to be eliminated by 1981, so that there would be no dwellings in need of major repair, no sharing by two or more families, and no overcrowding left by that year. On the basis of these estimates and goals, the required size and cost distribution for new residential construction over the forecast period can then be deduced.

As pointed out in Chapter 1, the future models were designed for the Metropolitan Toronto Planning Area, whereas the 1961 and 1966 models are for the Toronto Census Metropolitan Area. The minor differences in the key figures for these two areas as of 1966 are given in Table 20.

Population Forecasts

The forecasts of population, families and non-family individuals were prepared by the Metropolitan Toronto Planning Board, while the determination of the number of dwelling units and shelter units required to achieve an adequate housing stock by 1981 was made by the consultant. These key growth forecasts are given in Table 20. In brief, they show an increase in the number of occupied dwellings in the planning area from 572,519 in 1966 to 940,000 in 1981, and an increase in the number of shelter units from 755,266 to 1,059,720 over the same period. This net increase, together with an allowance of 2,000 dwelling units per year for replacement of estimated demolitions, will require an average new residential construction of about 26,500 units per year over the forecast period.*

* In 1968 28,000 dwelling units were completed in the Planning Area and it would appear that about 36,000 will be completed in 1969. However the number of dwelling units completed from year to year can fluctuate widely. For example the figures for the three years 1965 to 1967 were respectively 21,000, 34,000 and 25,000. Of the completions during 1967 and 1968 64% were apartments and it is expected that 76% of the 1969 completions will be apartments. It appears that the vacancy rates in apartments are increasing, and if this continues it would cause some reduction in the numbers of apartment units built in the next few years. An increase in the average number of units built between 1966 and 1981 beyond the number estimated in the report could be caused by changes in three variables, compared with the assumptions made, or any combination of these variables: a greater increase in population growth, a smaller average household size or a greater demolition rate and hence building rate to replace these demolitions. Any change in the population during the past two years is not likely to be much different from that recently projected and hence cannot be the cause of the recent increase in building completions. The assumptions in this report allowed for a considerable decrease in the average number of persons per occupied household, from 3.60 in 1966 to 3.12 in 1981. Precise statistics on demolitions are not available. There appears to be no reason to vary the projections made in this report at this time. Two further explanations of the recent increase in dwelling unit completions might be made, neither of which would affect the conclusions of this report: first that the meeting of a backlog of demand for dwellings has been expedited and secondly that the next decade might show an increase in the vacancy rates of dwellings over the very low rates which have prevailed in the last few years. The statistics in this report refer to occupied dwelling units; thus an increase in building rate accompanied by an increase in vacancy rate would not affect the estimates made of the potential need, indeed the inability of many people to afford adequate housing could cause an increase in vacancies.

TABLE 20 POPULATION, DWELLINGS, LODGINGS AND SHELTER UNITS IN THE STUDY AREA,
1966 ACTUAL AND FORECAST FOR 1971 and 1981.

	1966		1971 M.T.P.A.	1981 M.T.P.A.	1966-1981 M.T.P.A. Net Increase or Decrease Average Annual	
	C.M.A.	M.T.P.A.			Total	
Total Population (including Institutional)	2,158,496	2,100,370	2,361,700	3,002,300	901,930	60,129
Total Population (in Households)	2,117,035	2,059,653	2,297,740	2,933,900	874,247	58,283
Family Population	1,879,856	1,826,038	2,041,143	2,644,180	818,142	54,543
Non-Family Population	237,179	233,615	256,597	289,720	56,105	3,740
Total Occupied Dwelling Units (Households)	586,581	572,519	655,000	940,000	367,481	24,499
Family Households	494,406	481,675	540,000	770,000	288,325	19,222
Non-Family Households	92,175	90,844	115,000	170,000	79,156	5,277
Total Lodgings (in Households)	185,332	182,747	198,597	119,720	-63,027	-4,202
Lodging Individuals	138,598	136,364	141,597	119,720	-16,644	-1,110
Lodging Families	46,734	46,383	57,000		-46,383	-3,092
Total Shelter Units (Households plus Lodgings)	771,913	755,266	853,597	1,059,720	304,454	20,297
Estimated Dwelling Vacancy Rate	2%	2%	3%	4%		
Estimated Number of Vacant Dwellings	11,971	11,684	20,258	39,167	27,483	1,832
Estimated Total Dwelling Stock	598,552	584,203	675,258	979,167	394,964	26,331
Persons Per Occupied Dwelling	3.61	3.60	3.51	3.12		

This would give a ratio of shelter units to dwelling units in 1981 of 1.13: 1, down from 1.32: 1 in 1966. The only lodgers remaining in the 1981 model are all non-family individuals; lodging families have been eliminated on the assumption that they are all given adequate units of their own.

Of this total stock of over a million shelter units required by 1981 if the housing goals are to be met, just over 638,000 units would be provided by the surviving 1966 housing stock, leaving just over 421,000 units to be supplied through new residential construction between 1966 and 1981. These figures are for shelter units; for dwelling units as defined by the census, the required new construction would total just over 397,000 units.

Income Forecast

The income forecast was made in conjunction with a forecast of consumer prices (including housing prices), and a forecast of the future cost of shelter in the surviving 1966 housing stock. These forecasts were prepared in the light of comparable forecasts recently published by the Economic Council of Canada. For various reasons it was concluded that the Economic Council projections, prepared for the country as a whole, were too optimistic with regard to the likely future relationships between incomes and housing costs in the Metropolitan Toronto Area. The more conservative forecasts made for the Study assume the following average annual compound percentage increases:

1. Income in actual dollars: 3.95% per year
2. Consumer prices in actual dollars: 2.00% per year
3. Real income in constant 1966 dollars: 1.90% per year
4. Surviving 1966 housing stock shelter costs in actual dollars: 2.00% per year

On these assumptions, real income in constant 1966 dollars in the Metropolitan Toronto Planning Area would show an increase of about

9.9% by 1971 and 32.6% by 1981. The income distributions used in the future models reflect gains in average real income of this order.

It is also evident from the forecast assumptions, that the rise in the cost of the existing housing stock is assumed to equal the rise in consumer prices generally, i.e. 2% per year. This is based on another assumption explicitly made for the 1981 model: that sufficient housing will be available by 1981 to supply adequate shelter for all the residents of the Metropolitan Toronto Planning Area. Compared to the present housing supply situation this implies that no housing shortage would exist in 1981. Under this condition, it was concluded that no justification could be found for assuming a faster rise in the cost of the surviving 1966 housing stock than would take place in consumer prices generally.

Since the general consumer price rise is used as the deflator in calculating the rise in real income as compared to income in actual dollars, this means that the assumed rise in the future costs of the surviving 1966 housing stock, when deflated to put it in terms of constant 1966 dollars, becomes zero. That is, in constant 1966 dollars the surviving 1966 housing stock will maintain its present cost level, while real income, again in constant 1966 dollars, will increase by about a third over the forecast period.

Allocation of Shelter Costs Within Incomes

In allocating future shelter costs so that none would exceed the required ratios of incomes by 1981, a problem arose due to the fact that a great many families and non-family individuals do not currently pay as high a proportion of their incomes for shelter as the O.H.C. scale would permit. This factor is of great importance in determining the required cost distribution of the housing supply. If the relative proportion of those spending less than they can afford were to be reduced to a quarter or even a half of its present magnitude the required cost distribution would be shifted upward very significantly. If this were to happen and the cost of the surviving stock of 1966

housing remained at a reasonable level as forecast for the future models, the major part of the demand for new housing would be in the upper price ranges, and the need for lower priced housing could be met largely by the surviving stock (trial runs of the future models were used to verify this effect). But the forces operating against such a drastic reduction in the relative proportion of "underspending" on shelter are strong and it was deemed highly unrealistic in what will remain essentially a market economy, to assume so great a reduction in the next fifteen years. After consideration of the many factors involved, it was concluded that a reduction of the 1966 proportion of such "underspending" to about 90% of its present quantity by 1971 and 70% by 1981 would be the most reasonable assumptions to make for the future models. Along with the elimination of all "overspending" according to the O.H.C. scale, these assumptions then permitted the required shelter cost distributions to be calculated for the future models.

The 1981 Model

The 1981 model comprises Tables 21, 22, 23, 24, 25 and 26. Table 21 shows the estimated family size and income distributions in 1981. Table 22 shows the individuals and families by size which could be accommodated in the surviving 1966 housing stock in 1981, and gives the distribution of their shelter costs. Table 23 gives the required cost distribution of all 1981 shelter units, and by deduction of the cost distribution for the surviving 1966 shelter units, shows the required cost distribution for new residential construction between 1966 and 1981. Table 24 breaks down the cost distribution of those shelter units to be provided by new construction, as between owners and tenants on the one hand, and lodgers on the other. The owners and tenants column in this table shows the required cost distribution for new dwelling units as defined by the census. Table 25 cross-tabulates the required cost and size distributions for the shelter units to be provided by new construction over the 1966-81 period, and Table 26 gives the comparable cross-tabulation for all shelter units, old and new combined.

TABLE 21 ALL NON-FAMILY INDIVIDUALS AND FAMILIES BY SIZE,
BY TOTAL INCOME, METROPOLITAN TORONTO PLANNING AREA, 1981.

INCOME	INDIVIDUALS	FAMILIES								GRAND TOTAL
		2 Persons	3 Persons	4 Persons	5 Persons	6 Persons	7 Persons	8+ Persons	Total	
No Income	4090	146	3						149	4239
Under \$ 1000	17369	923	347	218	126	66	23	3	1706	19075
\$ 1000 - \$ 1999	17801	2590	167	353	158	90	31	4	3393	21194
\$ 2000 - \$ 2999	25531	4354	1761	1224	614	303	109	15	8380	33911
\$ 3000 - \$ 3999	24738	5742	3045	2497	1288	596	213	31	13412	38150
\$ 4000 - \$ 4999	37812	9422	9599	9079	4099	2210	788	112	35309	73121
\$ 5000 - \$ 5999	42201	22995	16302	18143	10863	5210	1676	239	75428	117629
\$ 6000 - \$ 6999	35410	43525	27382	25306	15616	6816	2436	348	121429	156839
\$ 7000 - \$ 7999	27534	54591	38275	31262	16284	7914	2830	403	151559	179093
\$ 8000 - \$ 9999	26491	55601	38060	39475	19397	7702	3521	502	164258	190749
\$10000 - \$14999	22479	36088	26478	30593	20140	7661	2368	434	123762	146241
\$15000 +	8264	19663	13371	16640	13055	6092	2175	219	71215	79479
Total	289720	255640	174790	174790	101640	44660	16170	2310	770000	1059720

TABLE 22 NON-FAMILY INDIVIDUALS AND FAMILIES BY SIZE, ABLE TO FIND ADEQUATE ACCOMODATION
WITHIN THEIR INCOMES IN THE SURVIVING 1966 HOUSING STOCK, BY GROSS SHELTER COST,
METROPOLITAN TORONTO PLANNING AREA, 1981.

MONTHLY SHELTER COST	INDIVIDUALS	2 Persons	3 Persons	4 Persons	5 Persons	6 Persons	7 Persons	8+ Persons	Total	GRAND TOTAL
1966 \$										
No Cost	11414	1019	450	502	296	166	71	10	2514	13928
Under 20	2496	42	19						61	2557
20- 29	15242	418	19	11	13				461	15703
30- 39	35996	5721	220	21				3	5969	41965
40- 49	20874	6436	2127	1475	901	1086	4	12	12043	32917
50- 59	18280	6725	6996	1452	850	222	2220	21	18486	36766
60- 69	13339	5532	2032	3604	806	251	112	176	12513	25852
70- 79	5530	6012	3948	3920	4711	241	140	33	19005	24535
80- 89	5839	7488	4982	6934	4132	399	158	34	24127	29966
90- 99	7744	8864	3909	9009	1033	501	187	599	24102	31846
100-109	9339	12023	8134	7732	2299	1150	885	49	32272	41611
110-119	5093	15533	6965	8497	2569	773	323	68	34728	39821
120-129	4623	9089	12551	9392	9397	3883	177	39	44528	49151
130-149	9119	21277	16152	21240	12484	5039	2081	116	78389	87508
150-174	2719	17328	15157	10908	12856	1722	1163	48	59182	61901
175-199	9028	9914	5672	11172	5266	5304	1301	139	38768	47796
200-249	6256	6939	3956	8005	3257	3587	891	93	26728	32984
250 +	4040	4404	2520	5334	2116	2423	589	59	17445	21485
Total	186971	144764	95809	109208	62986	26747	10308	1499	451321	638292

TABLE 23

REQUIRED COST DISTRIBUTION OF ALL 1981 SHELTER UNITS, FORECAST COST
DISTRIBUTION OF SURVIVING 1966 SHELTER UNITS, AND RESULTING 1966-1981
CONSTRUCTION REQUIREMENT, METROPOLITAN TORONTO PLANNING AREA.

MONTHLY SHELTER COST 1966 \$	Total Units Required in 1981	1966 Units Surviving in 1981	Required New Construction 1966-1981
No Cost	18418	13928	4490
Under 20	22882	2557	20325
20- 29	30808	15703	15105
30- 39	56655	41965	14690
40- 49	50902	32917	17985
50- 59	57423	36766	20657
60- 69	48160	25852	22308
70- 79	37789	24535	13254
80- 89	44098	29966	14132
90- 99	45529	31846	13683
100-109	60651	41611	19040
110-119	70879	39821	31058
120-129	85783	49151	36632
130-149	114690	87508	27172
150-174	73300	61901	11399
175-199	92983	47796	45187
200-249	49189	32984	16205
250 +	99581	21485	78096
Total	1059720	638292	421428

TABLE 24 REQUIRED COST DISTRIBUTION OF NEW SHELTER UNITS 1966-1981,
FOR OWNERS AND TENANTS AND FOR LODGERS, METROPOLITAN
TORONTO PLANNING AREA.

MONTHLY SHELTER COST <u>1966 \$</u>	<u>Required New Shelter Units 1966-1981</u>	<u>For Owners and Tenants</u>	<u>For Lodgers</u>
No Cost	4490	1808	2682
Under 20	20325	19726	599
20- 29	15105	12088	3017
30- 39	14690	6477	8213
40- 49	17985	13364	4621
50- 59	20657	17566	3091
60- 69	22308	21135	1173
70- 79	13254	12871	383
80- 89	14132	13964	168
90- 99	13683	13683	
100-109	19040	19040	
110-119	31058	31058	
120-129	36632	36632	
130-149	27182	27182	
150-174	11399	11399	
175-199	45167	45187	
200-249	16205	16205	
250 +	78096	78096	
Total	421428	397481	23947

TABLE 25
NON-FAMILY INDIVIDUALS AND FAMILIES BY SIZE, REQUIRING ADEQUATE ACCOMODATION
WITHIN THEIR INCOMES IN NEW HOUSING BUILT BETWEEN 1966 AND 1981, BY GROSS
SHELTER COST, METROPOLITAN TORONTO PLANNING AREA, 1981.

MONTHLY SHELTER COST 1966 \$	INDIVIDUALS	FAMILIES								GRAND TOTAL
		2 Persons	3 Persons	4 Persons	5 Persons	6 Persons	7 Persons	8+ Persons	Total	
No Cost	3412	483	238	167	117	49	22	2	1078	4490
Under 20	19515	526	262	8	14				810	20325
20- 29	14433	642	30						672	15105
30- 39	10521	2725	112	780	552				4169	14690
40- 49	9558	4807	1781	790	541	504		4	8427	17985
50- 59	7146	4295	5020	2510	653	85		6	13511	20657
60- 69	6957	7562	3123	2463	1737	210	942	156	15351	22308
70- 79	2162	3834	2828	1772	2494	94	100	12	11092	13254
80- 89	1987	4172	3120	2740	1908		58	11	12145	14132
90- 99	2486	4654	2303	3362	446	137	57	205	11197	13683
100-109	3059	6428	4888	2936	1019	381	314	15	15981	19040
110-119	2741	13628	6876	5298	1870	422	186	37	28317	31058
120-129	2414	7726	12012	5678	6630	2055	99	18	34218	36632
130-149	2026	7706	6581	5464	3751	1133	497	24	25156	27182
150-174	339	3504	3449	1571	2161	215	155	5	11060	11399
175-199	6506	11672	7510	9345	5142	3391	1017	104	38681	45187
200-249	2345	4244	2724	3478	1653	1364	361	36	13860	16205
250 +	5142	22268	16124	17220	7966	7210	1990	176	72954	78096
Total	102749	110876	78981	65582	38654	17913	5862	811	318679	421428

TABLE 26

ALL NON-FAMILY INDIVIDUALS AND FAMILIES BY SIZE, BY GROSS SHELTER COST
WITHIN THEIR INCOME, METROPOLITAN TORONTO PLANNING AREA, 1981.

MONTHLY SHELTER COST	1966 \$	INDIVIDUALS	FAMILIES								Total	GRAND TOTAL
			2 Persons	3 Persons	4 Persons	5 Persons	6 Persons	7 Persons	8+ Persons			
No Cost	14826	1502	688	669	413	215	93	12	3592	18418		
Under 20	22011	568	281	8	14				871	22882		
20- 29	29675	1060	49	11	13				1133	30808		
30- 39	46517	8446	332	801	552		4	3	10138	56655		
40- 49	30432	11243	3908	2265	1442	1590	6	16	20470	50902		
50- 59	25426	11020	12016	3962	1503	307	3162	27	31997	57423		
60- 69	20296	13094	5155	6067	2543	461	212	332	27864	48160		
70- 79	7692	9846	6776	5592	7205	335	198	45	30097	37789		
80- 89	7826	11660	8102	9674	6040	536	215	45	36272	44098		
90- 99	10230	13518	6212	12371	1479	664	251	604	35299	45529		
100-109	12398	18451	13022	10668	3318	1531	1199	64	48253	60651		
110-119	7834	29161	13841	13795	4439	1195	509	105	63045	70879		
120-129	7037	16815	24563	15070	16027	5938	276	57	78746	85783		
130-149	11145	20983	22733	26704	16235	6172	2578	140	103545	114690		
150-174	3058	20832	18606	12479	15017	1937	1318	53	70242	73300		
175-199	15534	21586	13182	20517	10408	9195	2318	243	77449	92983		
200-249	8601	11183	6680	11483	4910	4951	1252	129	40588	49189		
250 +	9182	26672	18644	22554	10082	9633	2579	235	90399	99581		
Total	289720	255640	174790	174790	101640	44660	16170	2310	770000	1059720		

The 1971 Model

A similar picture for a closer date is given by the 1971 model, which comprises Tables 27, 28, 29 and 30. In this case however, the cost distribution required to bring shelter costs within incomes by that year is so different from the present distribution of housing costs, that surplus of surviving existing housing in the higher price ranges is indicated as in Tables 29 and 30. This really means of course, that it would be quite unrealistic to attempt to achieve this goal so quickly; but by constructing the model in this way it is possible to calculate readily the required production of units to meet any desired proportion of the goal by 1971.

Thus, for example, if one goes a third of the way towards the goal of bringing costs within incomes by 1971, the lower cost unit requirements indicated in the tables need only be divided by 3 to give the production of new housing by cost range that would be required. Under such partial achievement of the goal, the indicated surplus of surviving existing housing in the higher price ranges would of course tend to disappear; these units would simply be taken up by occupants paying more than they should for shelter, because the supply of lower priced accommodation was still insufficient. Or, alternatively, some of the "excess" units might be acquired as public housing, and shifted to a lower cost range by subsidy. Or the market for high priced housing might become depressed and their prices therefore become lowered.

In the 1971 model, only the one variable, shelter cost, has been treated in this way; the inputs for each of the other variables have been estimated for 1971 in proportion to the overall 1966-1981 changes required to attain the 1981 model conditions by the latter year. Thus the total units shown in the 1971 model will be required to accommodate the forecast number of families and non-family individuals in 1971, with an improvement in the adequacy of their shelter proportional to the long-term improvement envisioned by 1981.

TABLE 27 ALL NON-FAMILY INDIVIDUALS AND FAMILIES BY SIZE,
BY TOTAL INCOME, METROPOLITAN TORONTO PLANNING AREA, 1971.

INCOME	INDIVIDUALS	FAMILIES							GRAND TOTAL
		2 Persons	3 Persons	4 Persons	5 Persons	6 Persons	7 Persons	8+ Persons	
No Income	8173	356	7					363	8536
Under \$ 1000	26653	1731	670	418	229	119	40	16	29876
\$ 1000 - \$ 1999	26304	4670	311	651	276	154	53	18	32437
\$ 2000 - \$ 2999	29186	6072	2538	1748	835	401	141	52	40973
\$ 3000 - \$ 3999	27638	7826	4286	3486	1716	771	271	100	46094
\$ 4000 - \$ 4999	39372	14210	12938	12132	5220	2738	959	351	87920
\$ 5000 - \$ 5999	39190	33469	22587	23357	13328	6218	1968	727	140844
\$ 6000 - \$ 6999	21513	34475	25052	20502	12076	5126	1802	655	121211
\$ 7000 - \$ 7999	12344	32416	23479	21140	9005	4463	1569	576	104992
\$ 8000 - \$ 9999	12071	33020	23351	24011	12526	4167	1955	720	111821
\$10000 - \$14999	10129	20807	15774	18069	11336	4686	1392	606	82799
\$15000 +	4024	11540	8108	10005	7481	3395	1193	348	46094
Total	256597	200592	139101	135519	74028	32238	11343	4179	597000
									853597

TABLE 28

OWNER AND TENANT NON-FAMILY INDIVIDUALS AND FAMILIES RESIDING IN SURVIVING 1966 HOUSING STOCK, BY SIZE OF FAMILY, BY GROSS SHELTER COST, METROPOLITAN TORONTO PLANNING AREA, 1971.

MONTHLY SHELTER COST 1966 \$	FAMILIES								GRAND TOTAL	
	INDIVIDUALS	2 Persons	3 Persons	4 Persons	5 Persons	6 Persons	7 Persons	8+ Persons		Total
No Cost	712	1010	467	520	306	172	74	55	2604	3316
Under 20	106	43	20						63	169
20 - 29	3289	433	19	12	13				477	3766
30 - 39	3260	5927	228	22				2	6182	9442
40 - 49	2475	6667	2204	1527	933	1123	3	12	12474	14949
50 - 59	6141	6882	7241	1505	882	233	2301	106	19150	25291
60 - 69	8942	5064	2115	3733	835	263	116	851	12977	21919
70 - 79	4138	6103	4089	4062	4880	252	145	160	19691	23829
80 - 89	5064	7922	5161	7184	4279	413	164	161	25284	30348
90 - 99	8019	6852	4049	9333	1070	519	195	2953	24971	32990
100 - 109	9443	12508	8427	8009	2381	1192	918	229	33664	43107
110 - 119	5275	15340	7216	8802	2662	801	335	321	35977	41252
120 - 129	4790	9247	13002	9730	9742	4029	185	193	46128	50918
130 - 149	10024	21107	16749	21909	12941	5208	2153	562	80629	90653
150 - 174	2815	17773	15712	11282	13324	1787	1206	226	61310	64125
175 - 199	9316	9724	5845	11709	5435	5481	1342	662	40198	49514
200 - 249	6481	6824	4099	8286	3374	3722	923	461	27689	34170
250 +	4186	4342	2610	5508	2192	2513	610	295	18070	22256
Total	94475	144268	99253	113133	65249	27708	10678	7249	467538	562014

TABLE 29
REQUIRED COST DISTRIBUTION OF ALL 1971 SHELTER UNITS, FORECAST COST
DISTRIBUTION OF SURVIVING 1966 SHELTER UNITS, AND RESULTING 1966-1971
REQUIREMENT OR SURPLUS, METROPOLITAN TORONTO PLANNING AREA, 1971.

MONTHLY SHELTER COST 1966 \$	Total Units Required in 1971	1966 Units Surviving in 1971	Requirement (-) or Surplus (+)
No Cost	24654	20135	- 4519
Under 20	34575	3082	-31493
20- 29	40251	18994	-21257
30- 39	59999	52358	- 7641
40- 49	55247	48784	- 6463
50- 59	58803	53781	- 5027
60- 69	47813	41831	- 5982
70- 79	37046	31925	- 5121
80- 89	42737	35049	- 7688
90- 99	43726	34938	- 8788
100-109	57869	44572	-13297
110-119	64099	42057	-22042
120-129	77573	51400	-26173
130-149	77829	90974	+13145
150-174	49738	64930	+15192
175-199	39861	49514	+ 9653
200-249	17507	34170	+16663
250 +	24265	22256	- 2009
Total	853597	740750	-167500 + 54653 -112847

TABLE 30 COST DISTRIBUTION OF REQUIRED AND SURPLUS SHELTER UNITS
1966-1971, FOR OWNERS AND TENANTS AND FOR LODGERS,
METROPOLITAN TORONTO PLANNING AREA.

MONTHLY SHELTER COST 1966 \$	Requirement (-) or Surplus (+)	For Owners and Tenants	For Lodgers
No Cost	- 4519	- 2650	- 1869
Under 20	-31493	-31044	- 449
20- 29	-21257	-19565	- 1692
30- 39	- 7641	- 2873	- 4768
40- 49	- 6463	- 2703	- 3760
50- 59	- 5027	- 1861	- 3166
60- 69	- 5982	- 3770	- 2212
70- 79	- 5121	- 4221	- 900
80- 89	- 7688	- 7166	- 522
90- 99	- 8788	- 8571	- 217
100-109	-13297	-13134	- 163
110-119	-22042	-21953	- 89
120-129	-26173	-26119	- 54
130-149	+13145	+13145	
150-174	+15192	+15192	
175-199	+ 9653	+ 9653	
200-249	+16653	+16653	
250 +	- 2009	- 2009	
Total	-167500 + 54653 -112847	-147639 + 54653 - 92986	-19861

The task of bringing costs within incomes will become relatively smaller with the passing of time, if average incomes increase faster than the average costs of the surviving 1966 housing stock, as assumed in the models. But by 1971, this relative filtering down, while significant, will still leave a large requirement for new units in the lower price ranges.

The 1971 model thus provides a frame of reference for the determination of short-term housing goals.

The findings of housing need indicated by the four models will be discussed in Chapter 5.

Validity of the Models

The validity of the models rests on the validity of the input data for each variable, and on the validity of the multiple cross-tabulations. These have been derived from census material wherever possible, and are based on carefully prepared estimates where census data is not available.

Special cross-tabulating techniques were developed for the study to relate the different variables, and these were tested against comparable cross-tabulations available from the census, to determine their reliability. While the test results were not perfect, they were close enough to conclude that the cross-tabulations produced in this way were within acceptable limits of tolerance for a study of this kind.

Thus although the input data, particularly for 1971 and 1981 contain errors of estimation, it is considered unlikely that these are serious enough to significantly distort the study findings.

For those who may wish to undertake their own appraisal of the validity of the models, a detailed description of the methods used in their development will be found in the Appendix.

Necessary Information Not Built Into The Models

Dwelling Size Requirements

The models show individuals and families by size. The sizes of housing units are not usually expressed in terms of the number of persons they are to accommodate however, and to relate the size categories used in the models to the size nomenclature usually used for dwelling units may prove useful. Because of the already complex nature of the models, it was impossible to incorporate dwelling size requirements into them. Accordingly, Table 31 has been compiled to show the dwelling sizes required for the various family sizes.

TABLE 31. DWELLING SIZE REQUIREMENTS BY NUMBER OF PERSONS

<u>Number of Persons</u>	<u>Size of Dwelling Unit</u>
1	Bachelor
2	One Bedroom
3) 4)	Two Bedrooms
5) 6)	Three Bedrooms
7) 8)*	Four Bedrooms
9+*	Five Bedrooms

* Of the families of 8 or more persons, the census indicated approximately 55% with 8 persons and 45% with 9 or more persons.

While this is a "rule of thumb" formula, it is based on the experience of the Ontario Housing Corporation in assigning units to meet tenants' needs, and it is felt that for purposes of the study, its application will give a sufficiently reliable indication of dwelling size requirements.

On the assumption that a dwelling will contain a living room, dining room and kitchen in addition to the number of bedrooms indicated, the formula does not require as many rooms as persons for families of 8 or more. In other words, such large families, if suitably housed according

to the formula, would be classed as overcrowded according to the definition used by the census and adopted for the study. Although it could be argued that economics of scale are evident here so that larger families can be suitably accommodated with a lower ratio of rooms to persons, the need for a minimum amount of individual privacy within a dwelling strongly suggests that the census definition is valid, and that ideally the formula should be amended so as to require at least as many rooms as persons even for the largest families. Either formula would be applicable to any distribution of need by size which may be deduced from any of the models.

Elderly Persons

The models do not show directly the need for elderly persons' public housing, because no breakdown has been built in for elderly and non-elderly individuals and families. The addition of such a breakdown, while desirable, would have added considerably to the complexity of the models, and was not considered feasible with the resources available for the study.

Separate estimates have therefore been prepared for this purpose, assuming that virtually all the elderly will be found among the individuals and the two-person families. Based on census tabulations, these estimates indicate that approximately 40% of the non-family individuals and 38% of the two person family heads are 60 years of age or older.

By taking these percentages of the inadequately housed individuals and two-person families in the low income range, estimates are then produced of the numbers eligible for elderly persons' public housing.

Unfortunately, the study resources did not permit more thorough investigation of the housing requirements of elderly persons, so that these estimates are not as firmly based as the figures in the models. It has also been necessary to apply the same elderly percentages to those in adequate as well as inadequate housing, whereas in fact the elderly proportion may

differ for these two groups; for example, it might be expected that a relatively larger proportion of elderly home owners will have paid off their mortgages. Nevertheless, the resulting estimates of elderly persons' housing needs appear reasonable, and it is considered that they are sufficiently reliable for purposes of the present study. Further reference to elderly persons is made in the next chapter under "Public Housing for Elderly Persons".

CHAPTER 5FINDINGS OF NEEDCriteria of Need and Housing Goals

The ultimate goal of adequate shelter for all within their incomes, and the criteria used in the study for determining costs within incomes and adequacy of shelter, have been discussed in Chapter 3.

Because resources are not unlimited, no nation in the world has ever succeeded in reaching the ultimate housing goal, and it is therefore necessary to consider a range of intermediate goals, short of the ultimate, from which public policy may select an attainable goal toward which resources may be allocated in a realistic housing program.

Although the needs measured by this study are grouped in certain categories in order to give meaning to the findings, it is not the purpose of the study to recommend any such intermediate goals. The purpose is rather to provide an accurate measure of the spectrum of need in the light of which a rational housing policy may be determined.

Degrees of Need

By combining the various model categories of income, size, cost-income ratio and shelter adequacy in various ways, many different degrees of need can be established. The number of families and non-family individuals in need according to the various combinations ranged from a low of about 800 to a high of 360,000 in 1966. It will be useful to consider this wide range first before selecting the most meaningful categories for further analysis.

Table 32 sets forth 23 different need categories derived from the 1966 model. The table is arranged in ascending order of the numbers in need, so that categories do not follow any ordered sequence. Many additional categories could of course be selected by choosing different combinations

TABLE 32 NUMBER OF NON-FAMILY INDIVIDUALS AND/OR FAMILIES
WITH HOUSING NEEDS, ACCORDING TO SELECTED CATEGORIES
OF NEED, TORONTO CENSUS METROPOLITAN AREA, 1966

<u>Income Range</u>	<u>* Sizes</u>	<u>**Cost/Income Relationship</u>	<u>***Inadequacy Categories</u>	<u>Number</u>
Low	3+	Beyond #2 Scale	1, 2	805
Low	3+	Beyond O.H.C. Scale	1, 2	1,727
Low	3+	Beyond #2 Scale	1, 2, 3	7,032
Low & Low-Mid	3+	Beyond #2 Scale	1, 2, 3	7,176
Low	3+	Beyond O.H.C. Scale	1, 2, 3	15,553
Low	2+	Beyond #2 Scale	1, 2, 3	21,897
Low	3+	Beyond O.H.C. Scale	1, 2, 3, 4	23,730
Low & Low-Mid	2+	Beyond #2 Scale	1, 2, 3	22,702
Low & Low-Mid	2+	Beyond #2 Scale	1, 2, 3, 4	26,936
All	2+	Beyond #2 Scale	1, 2, 3, 4	27,005
Low	2+	Beyond O.H.C. Scale	1, 2, 3	33,461
Low	2+	Beyond O.H.C. Scale	1, 2, 3, 4	42,021
Low & Low-Mid	2+	Beyond O.H.C. Scale	1, 2, 3, 4	46,992
All	2+	Beyond O.H.C. Scale	1, 2, 3, 4	47,864
All	1+	Beyond O.H.C. Scale	1, 2, 3, 4	56,384
All	2+	Beyond #2 Scale	0, 1, 2, 3, 4	59,361
Low	1+	Within and Beyond	1, 2, 3, 4	64,431
Low & Low-Mid	2+	Within and Beyond	1, 2, 3, 4	94,227
All	2+	Within and Beyond	1, 2, 3, 4	108,631
All	1+	Within and Beyond	1, 2, 3, 4	123,637
All	1+	Beyond #2 Scale	0, 1, 2, 3, 4	157,237
All	1+	Beyond O.H.C. Scale	0, 1, 2, 3, 4	293,500
All	1+	(Beyond O.H.C. Scale (Within O.H.C. Scale	0, 1, 2, 3, 4 1, 2, 3, 4	360,753

* 3+ means three and over; and so on.

** The #2 Scale is one in which the shelter cost proportion of income is half as great again as in the O.H.C. Scale.

*** The inadequacy categories are as defined in Chapter 3 under "Definitions of Inadequate and Adequate Shelter".
"0" refers to no inadequacies, i.e. to adequate shelter.

of the variables from the model, but it is felt that those given are sufficient to show the wide range of possibilities.

Thus, at the one extreme, there were, in 1966, 800 low income families of three or more persons, paying shelter costs well beyond their incomes according to the second or "hardship" scale, and living in the most inadequate housing. At the other extreme, if we take all of the families and non-family individuals who were either paying shelter costs beyond their incomes according to the O.H.C. scale, or were living in housing classified under any of the inadequacy categories, or both, the number was over 360,000 in 1966. Again, if need is defined to include all families and non-family individuals paying shelter costs beyond their incomes according to the O.H.C. scale, the model indicates there were over 293,000 in need in the Toronto C.M.A. in 1966. But if only those paying beyond their incomes and also living in inadequate shelter are defined as in need, then the total drops to just over 56,000. If need is defined to include all those with inadequate shelter, regardless of whether its cost is within or beyond their incomes, then the total indicated is just under 124,000.

Thus there are those who need better housing, there are those who need cheaper housing, and there are those who need both.

In general the most urgent need is probably found among the families, particularly those whose shelter is not only inadequate, but also too costly; there are almost 48,000 families in this category. But there are over 60,000 families in shelter that is inadequate but within their incomes according to the O.H.C. scale; and on the other hand there are 113,000 families whose shelter while adequate is beyond their incomes according to O.H.C. scale. If the second shelter-cost-to-income scale is used, these figures change considerably; the number of families with shelter that is inadequate but still within their incomes rises to over 81,000, while the number with shelter that is adequate but beyond their incomes drops to just

over 32,000. Of the 161,000 families paying beyond the O.H.C. scale, 59,000 are also paying beyond the second or "hardship" scale. Regardless of which scale is used therefore, and apart from the families whose shelter is both inadequate and too costly, there are large numbers of families whose shelter is either inadequate or too costly.

Non-family individuals extend the above figures; for example, there are 8,500 with housing that is both inadequate and too costly according to the O.H.C. scale, and more than 7,000 of these are paying beyond the second scale as well.

Trends in Housing Need

Table 33 compares the number in need in 1961 and 1966 according to each of the several need categories of Table 32 for which a comparison is possible. Unfortunately not all the combinations selected for Table 32 can be compared, because the 1961 model employs only one shelter-cost-to-income scale instead of two and has only three income ranges instead of four. The comparisons show somewhat different relative improvements for the various need categories due to the fact that many components of the models changed at different rates, but it is clear that an improvement in the overall housing need situation took place during this five year period. This finding is in line with the changes in the main market variables over the period which were discussed in Chapter 4. Not all sections of the market experienced the same rate of improvement of course, and in some sections - particularly the market for new housing - the situation evidently grew worse instead of better, especially toward the end of the period.

The Main Kinds of Need

Tables 34 and 35 show the numbers of families and non-family individuals with shelter classified as inadequate, too costly, or both, in 1961 and 1966. These tables summarize these three main kinds or categories of need by income group, and show the number of individuals,

TABLE 33

NUMBER OF NON-FAMILY INDIVIDUALS AND/OR FAMILIES WITH HOUSING NEEDS
ACCORDING TO SELECTED CATEGORIES OF NEED, TORONTO CENSUS METROPOLITAN AREA, 1961 AND 1966.

Income Range	Sizes	Definition of Need Cost/Income Relationships	Inadequacy Categories	Number	
				1961	1966
Low	2+	Beyond OHC Scale	1, 2	2,570	1,727
Low	3+	Beyond OHC Scale	1, 2, 3	18,774	15,553
Low	3+	Beyond OHC Scale	1, 2, 3, 4	27,487	23,730
Low	2+	Beyond OHC Scale	1, 2, 3	38,881	33,461
Low	2+	Beyond OHC Scale	1, 2, 3, 4	47,956	42,021
All	2+	Beyond OHC Scale	1, 2, 3, 4	55,374	47,864
All	1+	Beyond OHC Scale	1, 2, 3, 4	64,955	56,384
All	1+	Beyond OHC Scale	0, 1, 2, 3, 4	294,797	293,500
All	1+	(Beyond OHC Scale (Within OHC Scale	0, 1, 2, 3, 4) 1, 2, 3, 4)	373,183	360,753

TABLE 34

NUMBERS OF FAMILIES AND NON-FAMILY INDIVIDUALS WITH SHELTER CLASSIFIED AS INADEQUATE, TOO COSTLY*, OR BOTH, TORONTO CENSUS METROPOLITAN AREA, 1961.

Income Group	Size	Shelter Adequate But Beyond Income	Shelter Inadequate		
			Within Income	Beyond Income	Total
Low	3+ Person Families	74,205	12,876	27,457	114,538
	2 Person Families	19,674	4,329	20,509	44,512
	Individuals	87,962	1,577	8,394	97,933
	Total	181,841	18,782	56,360	256,983
Middle	3+ Person Families	9,498	34,404	3,161	47,063
	2 Person Families	18,220	15,770	4,238	38,228
	Individuals	18,726	5,752	1,180	25,658
	Total	46,444	55,926	8,579	110,949
High	3+ Person Families		2,422		2,422
	2 Person Families	245	1,065	9	1,319
	Individuals	1,312	191	7	1,510
	Total	1,557	3,678	16	5,251
Total	3+ Person Families	83,703	49,702	30,618	164,023
	2 Person Families	38,139	21,164	24,756	84,059
	Individuals	108,000	7,520	9,581	125,101
	Total	229,842	78,386	64,955	373,183

* Beyond the OMC Scale.

TABLE 35 NUMBERS OF FAMILIES AND NON-FAMILY INDIVIDUALS WITH SHELTER CLASSIFIED AS INADEQUATE,
TOO COSTLY*, OR BOTH, TORONTO CENSUS METROPOLITAN AREA, 1966.

Income Group	Size	Shelter Adequate But Beyond Income	Shelter Inadequate		
			Within Income	Beyond Income	Total
Low	3+ Person Families	52,138	11,159	23,730	34,889
	2 Person Families	1,672	2,520	18,291	20,811
	Individuals	79,712	1,405	7,326	8,731
	Total	133,522	15,084	49,347	64,431
Middle	3+ Person Families	32,090	30,482	2,500	32,982
	2 Person Families	26,416	13,502	3,335	16,837
	Individuals	40,777	4,900	1,187	6,087
	Total	99,283	48,884	7,022	55,906
High	3+ Person Families	132	2,188		2,188
	2 Person Families	966	916	8	924
	Individuals	3,213	181	7	188
	Total	4,311	3,285	15	3,300
Total	3+ Person Families	84,360	43,829	26,230	70,059
	2 Person Families	29,054	16,938	21,634	38,572
	Individuals	123,702	6,486	8,520	15,006
	Total	237,116	67,253	56,384	123,637
					360,753

* Beyond the O.H.C. Scale.

two-person families and three-or-more-person families involved in each case.

Many of the key need figures are given in these tables, including the number of low income families of three or more persons without adequate shelter, who may be said to comprise those eligible for family type public housing*. But the tables do not show the number eligible for elderly persons' public housing, because the needy elderly comprise only a portion of the low income individuals and two-person families. As noted previously, the elderly proportion of these two size categories was not built into the models because of the added complexity it would have introduced. The proportion has been estimated separately however on the basis of census tabulations, which indicate that approximately 40% of the non-family individuals and 38% of the two-person family heads are 60 years of age or older. The estimate of those eligible for elderly persons' public housing, produced by applying these ratios, is given in Table 36 which is discussed below.

The need for family type and elderly persons' public housing, which is of primary concern to the study, can thus be taken as a fundamental need category for further analysis.

Within the public housing need segment, comprising those in the low income group whose present housing is inadequate, there is a further breakdown between those paying shelter costs within and beyond their incomes according to the O.H.C. scale.

And beyond the public housing segment, the remaining need may be broken into two other fundamental categories: those not eligible for public

* The low income segment in the models was defined to correspond to that served by public housing. With regard to family size, it is true there are a few two-person families among public housing tenants, comprising usually a parent and one child, but these represent only a small proportion of the total number of two-person families; for study purposes therefore, it is assumed that family type public housing serves essentially the families of three or more persons.

TABLE 36 ALL FAMILIES AND NON-FAMILY INDIVIDUALS BY ADEQUACY OF SHELTER AND RELATIONSHIP OF SHELTER COST TO INCOME*, 1961, 1966 AND 1981.

	1961 C.M.A.	1966 C.M.A.	1981 M.T.P.A.
All Families and Non-Family Individuals (= Shelter Units)	670,367	771,913	1,059,720
Able to Find Adequate Shelter Within Their Incomes in the Private Market	297,184	411,160	1,059,720
Unable to Find Adequate Shelter Within Their Incomes in the Private Market - Total	373,183	360,753	
- Eligible for Public Housing - Total	53,759	46,289	
- Within Income	15,152	12,679	
- Beyond Income	38,607	33,610	
- For Family Type Public Housing - Total	40,333	34,889	
- Within Income	12,876	11,159	
- Beyond Income	27,457	23,730	
- For Elderly Persons' Public Housing - Total	13,426	11,400	
- Within Income	2,276	1,520	
- Beyond Income	11,150	9,880	
- Not Eligible For Public Housing - Total	319,424	314,464	
- Within Income	63,234	54,574	
- Beyond Income	256,190	259,890	
- Shelter Adequate But Beyond Income	229,842	237,116	
- Shelter Inadequate-Total	89,582	77,348	
- Within Income	63,234	54,574	
- Beyond Income	26,348	22,774	
- All Inadequately Housed, Both Eligible and Not Eligible for Public Housing - Total	143,341	123,637	
- Within Income	78,386	67,253	
- Beyond Income	64,955	56,384	

* According to the O.H.C. Scale.

** These families include only those with 3 or more persons and of low income.

Note: The 1981 column shows the situation as it will be in that year if the postulated housing goals are met.

housing but still without adequate shelter, and those whose shelter though adequate, is too costly according to the O.H.C. scale.

The inadequately housed segment is composed mainly of those in the low income group who are not eligible for public housing (the non-elderly individuals and two-person families), and those in the middle income group unable or unwilling to afford adequate accommodation. This segment also includes a small number in the high income group as defined for the study, mostly families of three or more persons, attesting to the current difficulty of securing adequate accommodation for larger families.

The remaining segment, with housing that is adequate but too costly, may perhaps be considered to have an economic problem rather than an accommodation problem. But it would be unrealistic to assume that this group can be ignored when considering housing policies and programs, for two reasons. First, many if not most of them may be enduring as much hardship as a result of their housing as those who have decided to pay lower shelter costs for inadequate housing; the difference is that the hardship of the former is in skimping on other essentials like food and clothing, rather than shelter. Second, given the capacity of the residential construction industry, it may be said that all housing problems are ultimately income problems. Nevertheless, this segment does have different implications for housing programs, and it will be kept separate as far as possible in the analysis of housing needs.

The need for public housing, for more adequate private housing, and for cheaper private housing

Thus the study is concerned with three basic kinds of need: the need for public housing, the need for private housing that is adequate in terms of space and condition, and the need for cheaper private housing; and the three are of course highly interrelated.

Using these segments of need, Table 36 analyses housing needs as indicated by the 1961 and 1966 models, and shows the 1981 goal, with all

needs met which is the assumption of the 1981 model.

The picture that emerges shows some significant improvements since 1961, but a large backlog remaining in 1966.

FINDINGS OF NEED

The findings cover the recent past (1961-1966), the long-term future (1966-1981) and the short-term future (1961-1971). They comprise the need for public housing, for better private housing, and for cheaper private housing.

To present them in a meaningful way, the total needs will be discussed first for each of the time periods, followed by a similar discussion of public housing needs, and then private housing needs.

Total Housing Needs

1961-1966

As mentioned previously, the total number of shelter units in the Toronto Census Metropolitan Area increased from 670,367 in 1961 to 771,913 in 1966. Table 36 shows the breakdown of these totals.

The number classified as adequate and within the incomes of their occupants showed a significant increase over the period from 297,184 to 411,160. This was an impressive gain, reflecting the fact that in general, incomes rose faster than shelter costs over the period, and in part the absolute decrease in the number of inadequate units. These changes were discussed in Chapter 4.

The remainder, comprising the shelter units classified either as inadequate, too costly, or both, showed a nominal decrease over the period from 373,183 to 360,753. Thus, the growth in population over the period was accommodated, and at the same time the backlog of need which had existed in 1961 was diminished.

This decline in total need was however due entirely to a significant decrease in the number of inadequate shelter units; for the component of need comprising families and non-family individuals with shelter classified as adequate but beyond their incomes according to the O.H.C. scale, showed an increase from 229,842 to 237,116. This increase partially offset the drop in inadequate shelter units from 143,341 to 123,637. Of the inadequately housed, those paying within their incomes decreased from 78,386 to 67,253 and those paying beyond their incomes decreased from 64,955 to 56,384.

1966-1981

In turning to a comparison of the 1966 and 1981 models, the fact that the former is for the Toronto Census Metropolitan Area while the latter is for the Metropolitan Toronto Planning Area must be taken into account. As noted in Chapter 4, Table 20, the difference in the two areas is of some significance in terms of the total number of shelter units involved, the Planning Area having only 755,266 compared to 771,913 in the C.M.A. in 1966.

In terms of unmet housing need however, the Planning Area accounted for approximately 99% of the C.M.A. total in 1966.

In analysing the requirements for the 1966-1981 period, Metropolitan Toronto Planning Area total units for 1966 have been used for comparability. In the case of the unmet housing needs however, since only a slight difference is involved, it was deemed less confusing to take the need figures directly from the 1966 model, so as to permit direct comparison between the two models. Although this results in a slight understatement of the 1966-1981 requirements to meet the needs, the distortion involved is considered insignificant for the purpose of the study.

Table 37 has been prepared on this basis. This table shows the amount of new housing that will be required in the Metropolitan Toronto

TABLE 37 NEED FOR NEW HOUSING IN THE METROPOLITAN TORONTO PLANNING AREA, 1966 TO 1981

	To Eliminate 1966 Inadequacies										Total		To Replace Adequate Units Demolished 1966-1981		Reduction of Individual Lodgers In Surviving 1966 Stock		To Accommodate 1956-1981 Population Growth		Total	
	Condition Alone or Overcrowding		Sharing or Condition, Sharing and Overcrowding		Sharing Alone or Overcrowding		Overcrowding Alone		Total		No.		No.		No.		No.		No.	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
All Families and Non-Family Individuals Requiring New Shelter Units 1966-81	8,364	100	1,994	100	39,277	100	9,794	100	59,429	100	27,750	100	29,795	100	304,454	100	421,428	100	(397,481)	(100)
Able to Find Adequate Shelter Within Their Incomes In The Private Market	-	-	-	-	-	-	-	-	-	-	12,540	45	19,840	67	131,055	43	163,435	39	(139,488)	(35)
Unable to Find Adequate Shelter Within Their Incomes In The Private Market	8,364	100	1,994	100	39,277	100	9,794	100	59,429	100	15,210	55	9,955	33	173,399	57	257,993	61	(257,993)	(65)
- Eligible For Public Housing - Total	2,927	35	766	38	16,957	43	3,534	36	24,184	41	7,607	28	1,786	6	89,916	30	123,493	29	(123,493)	(31)
- 1966 Shelter Within Income	621	17	232	11	5,643	14	885	9	7,381	13										
- 1966 Shelter Beyond Income	2,306	28	534	27	11,314	29	2,649	27	16,803	28										
- For Family Type Public Housing	1,834	22	572	29	12,666	32	2,806	29	17,878	30	5,945	22			71,663	24	95,486	23	(95,486)	(24)
- 1966 Shelter Within Income	481	6	198	10	5,171	13	762	8	6,612	11										
- 1966 Shelter Beyond Income	1,353	16	374	19	7,495	19	2,044	21	11,266	19										
- For Elderly Persons' Public Housing	1,093	13	194	9	4,291	11	728	7	6,306	11	1,662	6	1,786	6	18,253	6	28,007	6	(28,007)	(7)
- 1966 Shelter Within Income	140	2	34	1	472	1	123	1	769	2										
- 1966 Shelter Beyond Income	953	11	160	8	3,819	10	605	6	5,537	9										
- Not Eligible for Public Housing	5,437	65	1,228	62	22,320	57	6,260	64	35,245	59	7,603	27	8,169	27	83,483	27	134,500	32	(134,500)	(34)
- Shelter Adequate But Beyond Income	-	-	-	-	-	-	-	-	-	-										
- Shelter Inadequate - Total	5,437	65	1,228	62	22,320	57	6,260	64	35,245	59										
- 1966 Shelter Within Income	3,136	37	853	43	15,596	40	4,794	49	24,389	41										
- 1966 Shelter Beyond Income	2,301	28	365	19	6,724	17	1,466	15	10,856	18										

Note: The figures in the table show the numbers of families and non-family individuals to be accommodated, i.e. the numbers of shelter units required; the figures in brackets indicate the numbers of dwelling units required

Planning Area over the period 1966 to 1981 in order to overcome the outstanding need that existed in 1966, to replace losses to the stock during this future period, to reduce the number of individual lodgers, and to adequately accommodate the forecast growth in population.

The figures in Table 37 are still in terms of shelter units, not dwelling units as defined by the census. The difference in this case amounts to 23,947 shelter units for individual lodgers assumed to be provided in the 397,481 new dwelling units required over the forecast period, as shown in Table 24.

With regard to the 1966 backlog moreover, instead of showing the number of families and non-family individuals in need of more adequate accommodation, Table 37 shows the number of new shelter units which would have to be provided to overcome the inadequacies. Because a large proportion of the 1966 inadequacies were due to sharing and overcrowding, the number of new shelter units required for undoubling and uncrowding total less than half the number of families and non-family individuals who were inadequately housed in 1966. For example, two families sharing a dwelling were each considered to have inadequate accommodation according to the study criteria, but the provision of a single new dwelling to accommodate one of the families would overcome the inadequacy for both of them. Similarly, in the case of overcrowding, the provision of sufficient new shelter units to accommodate the excess of persons over rooms in the overcrowded dwellings, would be enough to eliminate this condition of inadequacy for all the occupants of those overcrowded dwellings. The precise number of new units required to accomplish this is not known, but for study purposes it has been assumed that the provision of one new shelter unit for every four shelter units classified as inadequate because of overcrowding, would be required for this purpose.

In the case of the shelter units classified as inadequate because they are in structures in need of major repair, replacement on a one for one

basis has been assumed necessary in order to provide adequate accommodation. Admittedly, some of the structures in need of major repair may be made adequate through rehabilitation, but the Metropolitan Toronto Urban Renewal Program figures suggest that replacement will be required in most cases, and accordingly for study purposes, replacement has been assumed as the way of overcoming all such inadequacies*.

On these assumptions, the number of new shelter units required to overcome the 1966 backlog of inadequate accommodation is as given in Table 37, the total being 59,429. But this is the physical requirement only, and it ignores the fact that many owners and tenants, in losing their lodgers, would also lose a source of income. This would shift many of them from the within income to the beyond income category, thereby increasing the number whose shelter, though now made adequate, would be beyond their incomes. In time of course, the forecast rise in real incomes would counteract this factor to some extent, but the immediate effect could still be serious. In Table 37, this factor has been taken into account in arriving at the figures for those who will be unable to find adequate accommodations within their incomes in the private market. But the fact that undoubling and uncrowding as physical solutions, can create serious income problems, should not be forgotten when planning programs to overcome housing inadequacies.

The provision of 59,429 new shelter units would however be sufficient to overcome the 1966 backlog of 123,637 inadequately housed families and non-family individuals (Table 36). The remaining requirement for new shelter units over the 1966-1981 period would be made up of three components.

The first component comprises replacements for adequate shelter units that will be demolished over the forecast period. In the light of past

* It has been assumed that urban renewal programs and enforcement of housing standard by-laws will effectively prevent housing that is presently not in poor physical condition from deteriorating into poor condition over the forecast period.

experience and known proposals for urban renewal and various public works, the total loss to the 1966 housing stock is estimated at 2,000 dwelling units per year, or 30,000 dwelling units from 1966 to 1981. In terms of shelter units, the 30,000 dwelling units are estimated to contain 38,108 families and non-family individuals. But the replacements for 10,358 of these shelter units to be lost through demolition have already been allowed for in overcoming the 1966 inadequacies due to structures in need of major repair. This then leaves 27,750 adequate shelter units which it is estimated will be demolished for various other reasons.

The next component comprises 29,795 additional shelter units required to accommodate a reduction in the number of individual lodgers to be accommodated in the surviving 1966 housing stock. This reduction was estimated in line with the forecasts for non-family population, non-family households, and the estimated distribution of individual lodgers in 1981 as between the surviving 1966 stock and post 1966 housing (the pertinent forecasts are given in Table 20).

The remaining component is the largest, and comprises 304,454 shelter units required to accommodate the net increase in the number of families and non-family individuals in the Planning Area over the forecast period.

The combined total requirement comes to 421,428 new shelter units, as shown in Tables 23, 24, 25 and 37.

In Table 37, this overall requirement has also been broken down into the three main categories of need mentioned before: those able to find adequate accommodation within their incomes in the private market; those eligible for public housing; and the remainder. For the 1966 backlog, this breakdown is given by the 1966 model. But for the other components of the total requirement for new housing over the forecast period, the breakdown must necessarily be based upon some assumptions about the likely

performance of private new residential construction in comparison with the required 1981 distribution of housing costs if the housing goals are to be met. The required cost distributions are summarized in Table 38.

The following assumptions have been made in order to produce the breakdown given in Table 37. This is not a breakdown built into the 1981 model, and other breakdowns based on different assumptions can be very readily produced.

The assumptions chosen are considered the most reasonable in the light of present housing price trends. They are as follows:

1. That those requiring new accommodation costing \$175.00 a month and up, in constant 1966 dollars, along with the individual lodgers estimated to obtain their lodgings in new housing constructed after 1966, will be able to find adequate accommodation within their incomes in the private market;
2. That families of three or more persons requiring shelter costing less than \$130.00 per month in constant 1966 dollars, along with elderly couples requiring shelter costing less than \$70.00 per month, and elderly individuals requiring shelter costing less than \$44.00 per month, will be unable to find adequate accommodation within their incomes unless it is provided by public housing;
3. That the remaining families and non-family individuals requiring housing constructed in the 1966-1981 period, will be forced to accept shelter that is either inadequate (due to sharing or overcrowding) or too costly, or both, unless means can be found of reducing the likely future prices of private new residential construction.

TABLE 38 REQUIRED COST DISTRIBUTION OF NEW RESIDENTIAL CONSTRUCTION
1966-1981, METROPOLITAN TORONTO PLANNING AREA.

Monthly Shelter Cost \$	SHELTER UNITS				DWELLING UNITS			
	No.	%	Cumulative No.	%	No.	%	Cumulative No.	%
No Cost	4,490	1.1	4,490	1.1	1,808	0.5	1,808	0.5
Under 20	20,325	4.8	24,815	5.9	19,726	5.0	21,534	5.5
20-29	15,105	3.6	39,920	9.5	12,088	3.0	33,622	8.5
30-39	14,690	3.5	54,610	13.0	6,477	1.6	40,099	10.1
40-49	17,985	4.3	72,595	17.3	13,364	3.4	53,463	13.5
50-59	20,657	4.9	93,252	22.2	17,566	4.4	71,029	17.9
60-69	22,308	5.3	115,560	27.5	21,135	5.3	92,164	23.2
70-79	13,254	3.1	128,814	30.6	12,871	3.2	105,035	26.4
80-89	14,132	3.4	142,946	34.0	13,964	3.5	118,999	29.9
90-99	13,683	3.2	156,629	37.2	13,683	3.4	132,682	33.3
100-109	19,040	4.5	175,669	41.7	19,040	4.8	151,722	38.1
110-119	31,058	7.4	206,727	49.1	31,058	7.8	182,780	45.9
120-129	36,632	8.7	243,359	57.8	36,632	9.2	219,412	55.1
130-149	27,182	6.4	270,541	64.2	27,182	6.8	246,594	61.9
150-174	11,399	2.7	281,940	66.9	11,399	2.9	257,993	64.8
175-199	45,187	10.7	327,127	77.6	45,187	11.4	303,180	76.2
200-249	16,205	3.8	343,332	81.4	16,205	4.1	319,385	80.3
250 +	78,096	18.6	421,428	100.0	78,096	19.7	397,481	100.0
Total	421,428	100.0	421,428	100.0	397,481	100.0	397,481	100.0

On these assumptions, the breakdown given in Table 37 indicates that of the 421,428 new shelter units required over the forecast period, 163,435 or 39%, may be expected to be supplied by private new residential construction without special assistance; 123,493 or 29% may be expected to require subsidization as public housing; and the remaining 134,500 or 32%, will require some effective means of cost reduction or income supplementation if they are to be supplied within the incomes of their prospective occupants. These figures are in terms of shelter units, not dwelling units as defined by the Census. In terms of dwelling units the total requirement would be 397,481, of which 139,488 or 35% would fall within the private market segment; the public housing and middle segment totals would remain as before, but would in this case represent 31% and 34% respectively of the total dwelling unit requirement.

Clearly, these assumptions are open to question. If the prices of new housing should continue to increase at their recent rate for example, only those able to afford housing costing perhaps \$200 to \$250 per month and up may be able to find adequate accommodation within their incomes in the private market by 1981. The assumption that those able to afford \$175 per month and up will be able to do so, therefore implicitly assumes some levelling off in the rate of cost increases for new housing. Such a levelling off could result from more favourable mortgage financing as well as from an easing of cost increases for land and construction however, and it was deemed a more realistic assumption than the projection of recent trends. It must also be remembered of course, that all these price references are in terms of constant 1966 dollars, and that they thereby discount an estimated inflation of 2% per annum, as discussed in Chapter 4.

Another question arises from the use of a single or average figure of \$175 per month instead of a set of different figures for each family size, as the cost level above which the private market may be expected to meet housing needs unaided. In reality of course, there will be a different cut-off

cost for each family size, but rather than make several assumptions each open to question, it was considered preferable and just as reliable to adopt the one, simple assumption, which may be viewed as a weighted average.

The other assumptions which pertain to the breakdown of future requirements between public housing and the remainder, are also open to some questions, but these will be discussed in the pertinent sections below.

1966-1971

The nature of the 1971 model was described in Chapter 4 where it was pointed out that the cost distribution indicated by the model for required new construction in the 1966-71 period was geared to bringing all costs within incomes by that date, and is therefore intended to be used as an outside frame of reference for the consideration of cost reduction efforts. Thus while the total new construction requirements of 112,847 shelter units by 1971 represents a reasonable proportion (26.8%) of the longer-term target of 421,428 units, the cost distribution to be aimed at by 1971 has been left to be determined after long-term policies and programs have been considered. It is clear however, that if the housing goals are to be met by 1981, a good start should be made by 1971, and this would imply that perhaps between one-quarter and one-third of the long-term requirement for low and medium cost housing would represent a reasonable goal for 1971.

Public Housing - Family Type

1961-1966

Referring to Table 36, the number of families in need of, and eligible for family type public housing, decreased from 40,333 in 1961 to 34,889 in 1966. These totals include only the families of three or more persons, in the low income range, whose housing was inadequate according to the study criteria. Admittedly, this definition does not exactly match the eligibility criteria for public housing, for on the one hand, there are some two-person families (generally mother-led) which are admissible to public

housing, while on the other hand, families whose housing is inadequate only because of a nominal degree of overcrowding, would scarcely consider themselves as in need. The relative size of these two groups is not known, but it is clear that they would tend to offset each other, and it was therefore deemed reasonable for study purposes, to assume that the low income families of three or more persons with inadequate housing as defined for the study, would closely approximate in number the families eligible for public housing. This definition includes owner as well as tenant families of course.

This definition of eligibility includes families whose accommodation, while inadequate, is within their incomes according to the O.H.C. scale, as well as those who are paying beyond the O.H.C. scale for inadequate shelter. As noted previously, those in the former group, although they may generally be considered to have a somewhat less urgent need than the latter, will still be unable to find adequate accommodation within their incomes in the private market, so that public housing offers the only hope for adequate shelter that they can afford. Furthermore, analysis of the 1966 model indicates that for the former group, the shelter inadequacies result more from sharing and less from overcrowding than is the case with the latter group. Insofar as sharing may be considered more serious than overcrowding therefore, it could be said that the inadequately housed low income families of three or more persons who have found shelter they can afford, have in many cases done so by accepting a more serious kind of inadequacy.

Thus it seems clear that both groups should be considered part of the need for family type public housing; and in many cases, the within-income families may actually have the greater need.

Both the within and beyond income family groups eligible for public housing decreased significantly and at about the same rate between 1961

and 1966, the former dropping from 12,876 to 11,159, and the latter from 27,457 to 23,730. In part, this improvement was a reflection of the impact of the public housing program, but since the impact of this program did not begin to be strongly felt until 1966, the major part of the improvement was the result of better conditions in the private housing market. In the early 1960's rising incomes and favourable market conditions permitted the improvements noted. Since 1966 of course, there are indications that although the public housing program has accelerated, the private market conditions have deteriorated, and judging by the number of public housing applications received, the unmet need for family type public housing is higher now than it was in 1966.

If the forecasts prove valid however, the long-term requirements will not be affected by such a present reversal of the 1961-1966 market trends, and the 1966 backlog of need, along with the forecast requirements for the 1966-1981 period, will comprise the total requirement for meeting the housing goals by 1981.

1966-1981

The 1966 deficiency comprised 34,889 families considered eligible for public housing, of which 23,730 were in shelter that was not only inadequate but also too costly, while 11,159 had shelter that was inadequate but within their incomes.

To overcome this backlog however, it would not be necessary to provide a new public housing unit for every family in need, because, for example, only one extra dwelling would be required to "undouble" two sharing families. As shown in Table 37, a total of 17,878 new units would be sufficient to provide adequate shelter for all 34,889 families in need of public housing in 1966. But this physical requirement for new units to overcome the backlog ignores the effect which undoubling and uncrowding would have on the incomes of those owners and tenants who would thereby

be deprived of the rents paid by lodgers. Many owners and tenants under such a program would be left with adequate shelter, the cost of which they could no longer afford. No allowance has been made for this indeterminate number of up to almost 17,000 families who might be added to the number spending beyond what they can afford on housing.

What is evident here is the fact that trade-offs between housing inadequacy and income inadequacy are continually taking place. Thus, it is not possible to divorce the problems of inadequate housing from the broader problem of poverty.

This is basic to the assumption made in determining future public housing needs after the 1966 backlog has been met. This assumption is that all low income families of three or more persons will be unable to find adequate accommodation within their incomes in private housing constructed after 1966, and that if they are to be given such accommodation, it will have to be provided by public housing.

This raises a question regarding the definition of low income in the future, however.

The future need figures in Table 37 were derived from Table 25, which shows by family size, the distribution of shelter costs within incomes which those requiring accommodation built between 1966 and 1981 will be able to afford. It is assumed that, aside from public housing, it will not be possible to provide new family type accommodation costing the occupant less than \$130 per month in the forecast period. It is also assumed that any families with shelter costs in 1981 of less than \$130 per month and who are spending less than they can afford (underspending) on shelter, must necessarily find their accommodation in the surviving 1966 stock, because no new private housing is likely to be built costing so little; thus the numbers shown in Table 25 as requiring new housing in the price ranges below \$130 per month, are assumed to really need accommodation that costs no more

than the table indicates and this can be provided only by public housing or some other form of public assistance.

The \$130 per month cut-off point was chosen because it is, according to the O.H.C. scale, just above the shelter cost which can be afforded by families of three or more persons with annual incomes of \$5,640 in 1966 i. e. at the upper limit of the low income range as defined for study purposes. Since the future cost and income calculations have been carried out in terms of constant 1966 dollars, these relationships will still hold in the future. But because of the forecast rise in real incomes by 1981, \$5,640 in 1981, although representing the same purchasing power as in 1966, will no longer demarcate the lowest third of the family income distribution, but only about the lowest sixth. Thus, if public housing should continue to serve the lowest third of the family income distribution in 1981, the upper limit of the low income group would have to be raised to about \$6,980 (in constant 1966 dollars) to encompass a third of the 1981 families; using the upper end of the O.H.C. scale, this income level would correspond to a monthly shelter cost of \$174.50. The effect of such a change would of course be to make public housing assistance available to families with significantly higher real incomes than is the case today. In compiling Table 37, the low income range was not extended upward in this fashion. If the cut-off point were raised from \$130 to \$175 per month the effect would be to raise the number eligible for family type public housing from 95,486 as given in Table 37, to 120,492, a 26% increase.

But for incomes between \$5,640 and \$6,980 per annum, capable of paying shelter costs between \$130 and \$175 per month in terms of constant 1966 dollars, it seems possible that other means than public housing will be found for providing adequate accommodation that these families can afford, thereby making it unnecessary to raise the effective upper limit of the income range served by public housing per se. Thus, for study purposes, the future public housing income range has been held at its present limit

in terms of constant dollars, and those above this limit have been considered ineligible for public housing.

On this basis, the total number in need of and eligible for family type public housing constructed in the 1966-1981 period, comes to 95,486, which after deducting 17,878 units required to overcome the 1966 deficiency, leaves a requirement of 77,608 needed to accommodate future population growth and to replace adequate units that will be demolished for various reasons over the forecast period.

These figures represent need and not effective demand, which will be discussed later in the chapter.

Public Housing for Elderly Persons

As mentioned previously, elderly individuals and couples in the low income range, aged 60 or over, and unable to secure adequate accommodation in the private market, are assumed to constitute the need for this type of public housing. Again, as with those needing family type public housing, some of the needy elderly are paying within incomes, and some beyond for their present inadequate accommodation. In either case, the elderly couples requiring accommodation built over the forecast period have been deemed to require public housing because adequate private accommodation within their incomes is not likely to be produced. In the case of the elderly individuals however, it is anticipated that a portion of them will be able to secure adequate new private accommodation in the form of lodgings that will be within their incomes.

The upper limit of the lower income range as defined for study purposes was set at \$3,600 per annum for two person families and \$2,700 for non-family individuals, in 1966. These limits, in accordance with the O.H.C. scale, correspond to monthly shelter cost figures of \$69 and \$43 respectively.

As discussed in Chapter 4, the number of elderly individuals and couples have been estimated at 40% and 38% respectively of the total individuals and two-person families as shown in the models.

1961-1966

As shown in Table 36, the number of elderly individuals and couples of low income and without adequate accommodation decreased from 13,426 in 1961 to 11,400 in 1966. Those whose inadequate shelter was within their incomes numbered 2,276 in 1961 but had decreased to 1,520 by 1966. The remainder who were paying beyond their incomes according to the O.H.C. scale, numbered 11,150 in 1961 but had decreased to 9,880 by 1966. Of the 1966 figures, elderly individuals, as opposed to couples, accounted for 562 of the within income group and 2,930 of the beyond income group, for a total of 3,492 or 30% of the 11,400, the remaining 70% of the need being for couples.

This ratio of individuals to couples is the inverse of that found in the Housing Registry of the Metropolitan Toronto Housing Department, where about 85% of the total of 6,000 entries in the registry in mid-1968 were for individuals. If allowance is made for the fact that the individuals are more likely to be able to find suitable private accommodation in the form of lodgings, then the indicated discrepancy becomes even greater. This would suggest that the relationship between need and effective demand for elderly persons' public housing differs significantly for individuals and couples.

Evidently there are many personal circumstances which are not revealed by the statistics in the model. For example many old people have some capital upon which to draw, or they receive help from their children, which enables them to pay more than what might be considered a reasonable proportion of their nominal income. Again, there might be elderly people who are inadequately housed but who prefer this to a change to public housing and who have therefore not applied to have their name on the Housing Registry.

If account were taken of elderly individuals and couples of income levels other than low in the model, then the above figures would be slightly increased. If the estimates were to include those paying shelter costs beyond their income but adequately housed then the estimated housing needs would again be slightly increased for couples but very much increased for individuals.

Without accurate figures of the numbers of elderly people in the various categories in the model and also without greater understanding of the range of circumstances of the elderly, it is impossible to assess their housing needs more precisely from the data assembled in this report.

1966-1981

Turning to Table 37, the same considerations that were discussed at length in connection with family type public housing should again be borne in mind.

To overcome the housing inadequacies of the 11,400 low income elderly individuals and couples as indicated for 1966, the provision of 6,306 new units would be sufficient to replace the existing units in need of major repair, and to accommodate the undoubling and uncrowding necessary. But again, this would deprive many owners and tenants of income from the rents paid by lodgers, and unless another way of supplementing their incomes were provided, many of them would probably no longer be able to afford their now adequate accommodation.

Beyond overcoming the 1966 backlog, it is anticipated that there will be a need for another 18,253 elderly persons' housing units to accommodate future growth in the elderly population, need for an additional 1,662 units to replace adequate shelter units demolished over the forecast period, and need for a further 1,786 units to accommodate needy elderly individuals who will no longer find suitable lodgings in the surviving 1966 housing stock. These three categories total 21,701, which along with the 6,306 units

required to overcome the 1966 backlog, gives a combined total need of 28,007 new units required over the forecast period to meet the needs of elderly individuals and couples eligible for public housing assistance.

A number of reservations should be made which would tend to reduce the above estimates of demand very considerably. The effective demand for public housing by elderly people at any time is less than the actual statistically measured need. Another consideration is the income levels of retired people. With the increasing provision of superannuation schemes and the improvements in the Canada Pension rates and the gearing of these rates to cost of living increases, the incomes of the elderly will in the future be increasing relative to the present.

The Remaining Need - The Middle Segment

The remaining need comprises all those who are unable to find adequate accommodation within their incomes in the private market, and who are also ineligible for public housing. This category includes the non-elderly individuals and couples in the low income range without adequate accommodation (as only families of 3 or more persons were included in public housing needs), all families and individuals not in the low income range and lacking adequate accommodation, and those families and individuals in all income ranges with adequate accommodation that is beyond their incomes according to the O. H. C. scale.

It is this remaining category of need that is often referred to as the middle income housing problem, but in fact it includes a significant low income component, not eligible for public housing, and extends upwards into what is commonly thought of as the high income range. Nevertheless, it is convenient to refer to this remaining need category as the middle segment of housing need.

It is also the need category for which means other than purely public or purely private housing are being sought in order to meet require-

ments. The HOME program and condominium housing will affect this category, as will any other programs for lowering the prices at which new housing can be made available or for supplementing the incomes of those in this category.

1961-1966

As shown in Table 36, of the families and non-family individuals ineligible for public housing but unable to afford adequate private housing, those with housing that was adequate but beyond their incomes increased from 229,842 to 237,116 between 1961 and 1966; those with inadequate housing, decreased from 89,582 to 77,348. The category as a whole therefore, showed a nominal decrease from 319,424 to 314,464. Thus a significant decrease in the inadequately housed more than offset the increase in those with housing that was adequate but beyond their incomes. The two trends were probably related, with many improving the quality of their housing at the expense of other items in their budgets.

What is impressive about the remaining need category as a whole however, is its size compared to the size of the public housing sector.

1966-1981

Again, in deriving the figures for Table 37, the assumptions previously discussed under family-type public housing were made. With regard to the backlog of 1966 inadequacies, the provision of 35,245 new shelter units would be sufficient to overcome the inadequacies of all 77,348 of those inadequately housed in 1966. But again, this would deprive many owners and tenants of income from the rents paid by lodgers, so that unless other means were found for supplementing their incomes, many would no longer be able to afford their now adequate housing.

For those whose shelter, while adequate, was beyond their incomes in 1966, the forecast rise in future real incomes is expected to bring about a significant improvement.

In Table 37, after allowing for the shelter units required to overcome the 1966 backlog of need between the public and private sectors, a single set of figures have been used to indicate the number of families and non-family individuals not eligible for public housing, whose shelter may be expected to be either inadequate, too costly, or both, unless means can be found for reducing the costs of new housing. The total number of new shelter units requiring such cost reduction is calculated at 134,500, far less than the 314,464 families and individuals in need as of 1966. In part, this lower number is due to the fact that only about half as many new shelter units are required to overcome the 1966 housing inadequacies as there were families and individuals occupying the inadequate units; for the rest, it is attributed to rising real incomes, which by 1981, will bring many of the presently adequate units which are too costly, within the incomes of their occupants.

The remaining need for some means of effectively reducing the costs of 134,500 shelter units is still significant however, and exceeds the total public housing requirement. Moreover, it must be remembered that this figure is based in part on the assumption that the private market will be able to supply the housing needs of those requiring shelter costing \$175 per month and up in constant 1966 dollars. Should this assumption prove wrong due to a faster price rise for new housing than assumed, then the private market unaided, might only be able to meet the needs of those requiring shelter costing perhaps \$200 or more per month, and this would increase significantly the number of new units for which some form of effective cost reduction would be required. For example, if the private market should prove unable to meet the needs of those requiring new shelter units costing less than \$200 per month, this would add another 45,187 units to the middle segment of need, bringing the total requiring some form of effective cost reduction to just under 180,000. On the other hand, if the income range served by public housing were adjusted upward so as to include the lower third of family incomes in 1981, this would transfer 25,006 families of

three or more persons to the public housing sector, dropping the 134,500 to 109,494.

The long-term requirement for cost reduction of new housing to meet the needs of those not eligible for public housing, but below the income level effectively served by the private market, is therefore likely to range between about 110,000 and 180,000 shelter units in the 1966-1981 period, depending on how the public housing income range is defined, and on the rate at which the costs of private housing rise over the forecast period. On the assumptions made for the study, the requirement will equal about 135,000 units.

NEED AND DEMAND

The primary purpose of this study is to measure need, not market demand. Moreover, the study budget did not permit more than a very cursory examination of the question of demand. But the relationship of demand to need is important to the evaluation of housing policies and programs, and deserves some comment.

The picture of total housing requirements which has emerged from the study shows much of the need for new housing in the middle and lower price ranges, and it is tempting to assume that if new housing could be produced with a related price distribution, there would be no question that effective demand would exist for it.

Aside from the public housing sector, such an assumption would appear to be reasonably valid. But in the case of family type public housing, there is some evidence to indicate that the present ratio of market demand to need is quite low, and although it is probably rising, it does not appear safe to assume that the effective demand for public housing will equal the indicated need over the forecast period.

The evidence referred to is neither direct nor conclusive, but it does suggest a significant difference between need and effective demand. It consists of a comparison between the number of families in need of public housing in 1966 as shown by the study, and the number of applications on file with the Housing Registry of Metropolitan Toronto at that time, and of a subsequent 1967 study by the Ontario Housing Corporation* of the proportion of applicants who may be expected to accept a family type public housing unit when it is offered to them.

In June of 1966, the effective date of the need figures, there were 4,803 applications on file with the Housing Registry. By September 1966 however, the number of applicants had increased to 6,901, while a year later in September of 1967, the number on file exceeded 10,000. This was a period in which the number of public housing units in the Metropolitan Area was being significantly increased, and it was also a period in which housing market conditions were worsening. The sharp rise in public housing applications was therefore probably due in part to increasing public awareness of the possibility of obtaining a public housing unit, and in part to an increase in the actual need. Under these conditions, it is felt that the September 1966 applications figure is probably more comparable to the need figures because it allows for the growing awareness of public housing, and the time required to make an application. Comparing the 6,901 applications at that time with the 34,889 families in need as indicated in Table 36, gives a ratio of about 1 in 5. If the comparison is made only with the requirement for 17,878 new units needed to overcome the backlog as shown in Table 37, the indicated ratio would be about 2 in 5. Of course it should be remembered that owners as well as tenants are included in these need figures, and that the tenants' ratio of effective demand to need must therefore be higher.

* Report on a Survey of Family Housing Applicants on file with the Housing Registry of Metropolitan Toronto and Ontario Housing Corporation as of December 1, 1967.

The study by the Ontario Housing Corporation, of the more than 10,000 applications on file in September of 1967, concluded that about half the applicants were apparently no longer interested. Moreover, the experience of O.H.C. indicates that when units are actually offered to still-interested applicants a further proportion decline to accept, usually because the location of the unit offered is not suitable; this drops the ratio still further with the result that of the total applicants on the waiting list, the proportion that may currently be expected to actually accept units when they become available is only of the order of approximately one-third. Applying this ratio to the others, would therefore indicate a ratio of effective demand to need in 1966 of approximately 1 in 15 or 1 in $7\frac{1}{2}$, depending on which need figure is used. On this basis, the effective demand for public housing in mid-1966 would only have been on the order of about 2,300 units ($1/3$ of the 6,901 applications).

However, the ratio of effective demand to need is subject to change over time, depending on the availability and acceptance of public housing. The shorter the waiting period, the greater the choice of location and type of dwelling, and the greater the public awareness of these facts, the higher the ratio will be. Similarly, attitudes towards public housing are subject to change over time, and many who felt there was a stigma attached to it may not feel this way in future. Thus it is considered that the ratio of demand to need has risen since 1966, and it seems safe to assume that it will continue to rise in future, particularly if more public housing of good design is made available at a variety of locations throughout the Metropolitan Area.

How closely the ratio may approach 1:1 over the forecast period is problematical however. Yet this question is of great significance to the overall housing program that will be required. For if the long-term effective demand for public housing falls significantly short of the need, there will be that much more remaining need for which other means of reducing housing

costs or augmenting incomes will have to be sought, if the housing goals are to be met. In view of the evidently low ratio in 1966, it is not considered likely that public housing demand will come to equal the indicated need over the forecast period.

POLICY IMPLICATIONS

The total requirement over the 15 year forecast period for 421,428 new shelter units, or 397,481 new dwelling units, is considered well within the capacity of the residential construction industry. In terms of dwelling units, the average requirement is only 26,500 units per year, which may be compared with the average attained over the 5 year period 1964-1968 of about 26,000 per year. The problem will be to provide the right sizes and types of units for the families and individuals they must accommodate, at the prices required to bring shelter costs within incomes.

The study indicates that this will not be an easy task, for about 65% of the new dwelling units are considered likely to require some effective means of cost reduction if this goal is to be met. Approximately 31% will be required for the segment of the market eligible for family type and elderly persons' public housing, while the remainder, over a third of the total, will require some means of cost reduction other than public housing subsidies, unless public housing policies are altered so as to expand the public housing segment. Moreover, it is considered unlikely that the effective demand for public housing will be as great as the need, and this would leave still more units requiring some other means of cost reduction. Similarly, if the costs of new private housing rise faster in relation to incomes than anticipated, the segment requiring other means of cost reduction would also be expanded.

In any event, it is clear that there is an important middle segment of need, comprising essentially the low income range not served by public housing, and the middle income range, for which some effective means of

reducing costs or augmenting incomes will be required if the postulated housing goals are to be met.

The size of this middle segment over the forecast period makes it clear that token programs or sporadic programs will not suffice, and that programs of considerable magnitude will have to be sustained if needs are to be met. Clearly, in the face of a problem of such magnitude, all acceptable means of lowering the costs of the private production of housing should be explored so as to reduce to a minimum the need for public assistance programs of one kind or another. Numerous recommendations with this intent have recently been proposed by the Federal Government's Task Force on Housing.

But even allowing for these and perhaps other changes which may permit the private production of housing at lower costs, it seems likely that public assistance programs of considerable magnitude will still be required to meet this middle segment of need. If this proves to be the case, it would be well to examine thoroughly all the potential methods of administering such assistance, so that the most suitable kind of program may be selected. From experience here and in other countries, it would appear that the social implication of alternative assistance programs should be given particular attention in such an examination.

One other policy issue must also be mentioned, and that is the extent to which the indicated housing need of the Metropolitan Toronto Planning Area will be met by housing located within the Planning Area boundary. The Provincial Government has recently indicated that the portion of the Metro Planning Area outside of Metropolitan Toronto proper will be placed under the jurisdiction of three proposed new regional governments, and such a change might well result in revisions to the draft Metro Official Plan for this fringe area which would affect the assumptions regarding the future distribution of population and housing on which the forecasts were

based. The issue here is whether the proposed regional governments adjacent to Metropolitan Toronto will be willing or financially able to provide dormitory housing for Metro workers.

If these proposed regional governments are established, the housing need study should be reviewed at the time to determine the implications for housing programs. The findings of need would not necessarily be invalidated thereby however, for with the un-met need so heavily concentrated in Metropolitan Toronto proper, it is primarily a question of where the new housing required is to be located.

CHAPTER 6

RECOMMENDED FURTHER STUDIES

The present study has proved that it is possible, at reasonable cost, to build housing market models of sufficient complexity to provide considerable insight into the housing situation. The further studies which will be recommended here are of two main types: those that would improve the models, and those that would assist in their application as guides to the formulation of housing policies and programs. Another type of study, to find ways of meeting the need for housing, is also required of course, but is not gone into here because such a study has been undertaken by the Federal Government's Task Force on Housing.

Studies To Improve The Models

(1) Of the possible studies to improve the models, probably the most useful would be a thorough investigation of shelter-cost-to-income scales. In such a study the distinction would have to be made between a scale such as the O.H.C. scale, and a scale designed specifically for use in a housing market model to give an overall measure of the relative degree of hardship involved in various cost-income ratios. With the techniques developed in the course of building the models, it would now be possible to experiment with the application of many different scales and to determine the quantitative affect of each when applied to numbers of families of different sizes and incomes. With the prospective need for increasing public assistance to housing if the postulated housing goals are to be met, an improved instrument for determining acceptable shelter-cost levels will become increasingly essential.

(2) The second important area for further study involves the housing needs of elderly persons. As mentioned before, it was originally hoped that the present study would be able to determine current and future needs in this sub-market in the same detail contained in the models for the

market as a whole; but this proved impossible under the limited study budget, and it has only been possible to provide a rather rough indication of the need for elderly persons' public housing. With the anticipated growth in the number of elderly persons in the total population, and with the recent decision to place future senior citizens' housing projects on a rent-geared-to-income basis, there will be a growing need for such a study.

(3) Probably the next most important area for further research concerns the matter of "underspending" on housing. Very little is known about this vital aspect of the housing market, but it seems clear that it plays a most important role which can influence significantly the amount of public assistance which may be required. A thorough study of this subject would seem essential before public assistance programs of greater magnitude are undertaken. Such a study should not be undertaken however, until a more refined shelter-cost-to-income scale has been developed to provide a reliable measure of the relative degrees of underspending involved.

(4) Another refinement of the models would also be desirable; the development of a workable method for treating in a model the cost and investment return to an owner of his equity in the case of ownership housing.

(5) In the public housing need segment, it would also be desirable to employ separate categories throughout the low income portion of the models for owners, tenants and lodgers.

(6) Further studies need to be made to refine the projections of total housing stock. In this study the models to 1981 deal with occupied dwellings only and are related to projections for the population and its structure and also households, and these projections formed, as it were, a separate sub-model, the results of which were integrated into the models referred to in the report. A standardized model should be designed which could be used for any part of Canada or for Canada as a whole. This should be related to available statistics of population and housing and consideration

should be given to any improvement of official statistics required to improve the inputs for such a model. Once constructed, any model for a particular region or urban area could be readily updated from time to time by new statistics and predictions amended accordingly; the housing stock requirements could then be compared with the current stock and construction rates.

Studies On The Application Of The Models

(7) Turning now to studies which would assist in the application of the models, the most important would be a study of the costs and benefits of meeting the various degrees of housing need which the present study has measured. While it is probable that such a study would concentrate largely on the role of potential public financial assistance, and the public financial resources from which it would have to be provided, it is evident from the findings of the present study that there will be an increasing requirement for public and private cooperation in the provision of the new housing needed in future. It would seem desirable therefore, that the study should also investigate the presently available arrangements for such cooperation, with a view to proposing any desirable improvements in the way in which public and private enterprise can best effectively work together. Such a study should be viewed as a component part of a potential planning, programming and budgeting system for the rational allocation of limited resources among competing needs; it could be considered to be a study of the housing needs we can realistically afford to meet, and as such it would provide a firm basis for a long-term housing program.

(8) The final recommendation is for a study of the ways in which future Housing Censuses of the Dominion Bureau of Statistics might be tied in directly with the development and the periodic updating of housing market models for various areas in the country. Because most of the model inputs necessarily come from the Census of Housing, such a direct tie-in with D.B.S. would offer the greatest hope of developing improved models and

streamlining their production and updating. And because the Housing Census is nation-wide, models could be developed for any metropolitan or urban area, for larger regions or provinces, and perhaps for the country as a whole.

The basic model design is a multiple cross-tabulation which requires reliable and comparable inputs for each of the main market variables, and which is particularly adapted to handling by computer. Through cooperation with D.B.S. it should be possible to standardize the Housing Census outputs so that they can be directly fed as inputs into a pre-programmed computerized model. It would also be possible with D.B.S cooperation, for the Census of Housing to fill some of the information gaps which now exist with regard to certain key variables, thus avoiding the estimating that was required in the present study. The most serious gaps concern the shelter costs of owners and lodgers, and the precise definitions and enumeration methods for households. Accurate computer cross-tabulation would also, of course, be more reliable than the cross-tabulating techniques which had to be developed in order to construct the present models. Once a standard computerized model had been programmed, it could of course be used on any adequate computer facility, and the required Housing Census outputs, if tailor-made, could be promptly used to run the models for many areas across the country. Once such a system was established, the costs of operating it should be very modest compared to the benefits that would result from a much better understanding of housing needs. Indeed, a system of this kind would appear essential if housing needs are to be given proper priority in any overall system of government planning, programming and budgeting.

While the time before the 1971 Census of Housing is now very short, the need for a significant improvement in the information on which vital housing decisions must be based, is becoming increasingly urgent. It is therefore recommended that every effort be made to undertake a study

of the kind proposed in time to assure as much tie-in as possible of the 1971 Housing Census with the need for better information about the main housing markets across the country. From the experience gained in building the present models, it is felt that many improvements might be made which would add little if any cost to the Census.

Conclusion

The present study thus leaves much significant work to be done. The models which have been built are far from perfect, and suffer from the various shortcomings which have been mentioned throughout this Report and the Appendix. Every possible effort has been made however, to make them as reliable as possible with the information and techniques at present available, and they are considered sufficiently accurate to fulfill the purposes of the study.

It is hoped that the information provided will prove of some value to all who are concerned with housing in the Metropolitan Toronto Planning Area.

